

City of Newark, New Jersey

*Forty-Fourth
Annual Report*

OF THE

Department
of Health

Annual Report



FOR THE YEAR ENDING DECEMBER 31, 1928

WITH THE COMPLIMENTS OF THE

**DEPARTMENT OF HEALTH
OF NEWARK, N. J.**

THIS DEPARTMENT WOULD BE GLAD TO RECEIVE
YOUR PUBLICATIONS IN RETURN

CHARLES V. CRASTER, M.D., D.P.H.
HEALTH OFFICER



Food Handler Examination in Chest Clinic

FORTY-FOURTH ANNUAL REPORT

OF THE

Department of Health

[DEPARTMENT OF PUBLIC WORKS]

CITY OF NEWARK, NEW JERSEY



FOR THE YEAR ENDING DECEMBER 31, 1928

THE ESSEX PRESS, PRINTERS
NEWARK, N. J.

NEWARK—A HEALTHY CITY

(Population July 1, 1928—474,000)

Outstanding Rates in 1928

Crude Death Rate (5,735 deaths).....	11.6 per M
Adjusted Death Rate (5,212 deaths) (Including Soho and Verona deaths, ex- cluding non-residents)	10.9 per M
Birth Rate (9,802 Births) (Lowest ever)	20.6 per M
Infant Mortality (deaths under 1 year per 1,000 living births).....	63.8
Typhoid Fever Mortality (lowest ever)....	1.0 per CM
Tuberculosis Mortality (all forms).....	86.9 per CM
Diphtheria Mortality	20.0 per CM
Scarlet Fever Mortality.....	1.2 per CM
Smallpox Mortality (Not one death since 1903).	

DEPARTMENT OF HEALTH

[DEPARTMENT OF PUBLIC WORKS]

CITY OF NEWARK

Director.....JOHN F. MURRAY, JR.

Health Officer.....CHARLES V. CRASTER, M. D., D. P. H.

OFFICES

Headquarters, Plane and William Streets.....Phone 3310 Mitchell

City Dispensary, Plane and William Streets.....Phone 3310 Mitchell

Laboratories (Bacteriological, Pathological and Chemical)

Hospital Building, 116 Fairmount Avenue.....Phone 9300 Market

LET US USE THE TOOLS WE HAVE

"The task of preventive medical science is not to discover new rules but to devise methods of measuring how far the rules we know are, or can be, obeyed."

GREENWOOD.

TO THE READER

There are two outstanding occurrences in the report for 1928, one is the high prevalence during the year of a preventable disease, Diphtheria, and the other the wide occurrence of one that cannot be so classed Measles. The former can be wiped out completely by the general immunization of children by toxin antitoxin the control of the latter must await some scientific discovery which will act in a similar way.

CHARLES V. CRASTER, M. D., D. P. H.,
Health Officer, Newark, N. J.

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EMPLOYEES OF THE DEPARTMENT OF HEALTH

EXECUTIVE DIVISION

CHARLES V. CRASTER, M. D., D. P. H.	<i>Health Officer</i>
DAVID D. CHANDLER (Retired)	<i>Health Officer</i>
FRANK SHEA	<i>Bookkeeper</i>
ROBERT F. MORGAN	<i>Clerk-Stenographer</i>
HENRY A. HABIG	<i>Clerk-Stenographer</i>
GRACE O'CONNOR	<i>Clerk-Stenographer</i>
NATHAN HERSHKOWITZ	<i>Clerk-Typist</i>
MICHAEL YACULLO	<i>Messenger</i>
MARCELLA DELACEY	<i>Telephone Operator</i>
MALCOLM HUNTER	<i>Multigraph Operator</i>
ELBERT S. BALL	<i>Clerk</i>
CORA B. NATHAN	<i>Clerk</i>
CHARLES A. HARTMAN	<i>Janitor</i>
AUGUST W. JARGOSCH	<i>Janitor</i>
JAMES P. MADDEN	<i>Night Custodian</i>
JOSEPH COLLINS	<i>Chauffeur</i>

SANITARY DIVISION

WILLIAM H. YOUNG	<i>Chief Clerk</i>
ANDREW J. BRADY	<i>Chief Sanitary Inspector</i>

Health Inspectors

CHARLES F. CONRAD	HENRY MACDONALD
ADOLPH O. ELSASSER	CHARLES E. DIVINE
CHARLES N. McLOUGHLIN*	JAMES J. MCCARRON
JOHN A. DONOVAN	EDMUND RYAN

LEWIS E. BOUTHILIER

* Retired on half pay April 1, 1928.

Sanitary Inspectors

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 PATRICK J. BROGAN
 JAMES J. WATERS
 JAMES WHELAN
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 HOWARD HUFFERT
 PATRICK J. KEATING
 GUSTAVUS E. FRIEDEMANN
 CLARENCE J. PALMER
 EDWARD A. CLEARY
 THOMAS P. WALSH
 EDWARD GAYNOR
 ROCCO DEL TUFO

EDWARD A. SMITH
 JOSEPH F. McCONNELL
 THOMAS M. McGRATH
 JOSEPH F. POWERS
 HARRY SHEEHAN
 WILLIAM KEANE
 ANDREW BOUTILLIER
 JOHN F. LYNCH
 JOSEPH H. REID
 PHILIP MURPHY
 CYRUS J. MULLEN
 BERNARD FINN
 JOSEPH SPINOSA
 WILBUR CLARK

JOHN P. ROGERS

Clerk Stenographer

ARTHUR VISCIDE

Clerk-Stenographer

CHRISTOPHER C. NUGENT..

Plumbing Inspector

PLUMBING DIVISION

CHARLES A. HALIGRING..

Chief Plumbing Inspector

Plumbing Inspectors

ANDREW J. MCGOOKIN
 JOHN L. WHEALAN
 PATRICK J. MONAGHAN

JOHN LEVINE
 DANIEL MURPHY
 CHARLES MCGOOKIN

RICHARD MARTIN

JANE McNALLY

Clerk

COMMUNICABLE DISEASE DIVISION

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Director of Contagious Diseases

DR. HAROLD H. GOLDBERG

Asst. Director of Contagious Diseases

IRWIN C. DAKIN

Chief Inspector

MICHAEL MANNING

Clerk

MARY F. MCGUINNESS

Clerk-Stenographer

THREESA CAPRIO

Clerk-Typist

Health Inspectors

GEORGE W. GILMORE

OBADIAH S. COLE

DEPARTMENT OF HEALTH

13

Sanitary Inspectors

*RICHARD J. CORBLEY	GARRET E. ST. JOHN
†GEORGE A. VAN HOUTEN	WILLIAM S. JENNINGS
FREDERICK W. NICHOLS	JAMES D. NOLAN
THOMAS F. NEWTON	JOHN J. GREENE
LEO G. DUFFY	STEPHEN TAFARO
WILLIAM J. FOYLE	CHARLES J. YOUNG
WILLIAM HOPPER	GEORGE RAPPAPORT
KATHERINE SCHUBEL ..	<i>Visiting Nurse</i>
EDNA FRANSSEN	<i>Visiting Nurse</i>
AGNES RFLIA	<i>Visiting Nurse</i>

* Died January 2, 1929

† Retired September 1, 1928.

FOOD AND DRUG DIVISION

SAMUEL G. SHARWEL	<i>Chief Inspector</i>
HALSEY M. DURAND	<i>Chemist</i>
NICHOLAS D'AURIA	<i>Chemical Laboratory Assistant</i>

Food and Drug Inspectors

JOSEPH E. CONNOLLY	CHARLES HELMSTETTER, JR.
DAVID E. MORGAN	HENRY KUHMANN
HENRY F. KNELLER	FRANK KREITLER
ADOLPH E. HOERNIG	GEORGE C. HENERLAU
WILLIAM G. HEILMAN	JOSEPH DE BENEDICTIS
RICHARD P. JACKSON, JR.	LAURENCE RENDIS
JOHN C. PROSCH	CHARLES E. THOMPSON
JOSEPH REUTER	RICHARD POWELL

JAMES DOLAN

RICHARD JACKSON	<i>Milk Inspector</i>
CATHERINE E. MAHONEY	<i>Clerk-Typist</i>
CHARLES WESSER	<i>Clerk-Typist</i>
JOHN F. DEMPSEY	<i>Clerk</i>

VETERINARY MEAT INSPECTION BUREAU

WERNER RUNGE	<i>Chief Veterinarian</i>
JOHN N. WITTPENN.....	<i>Veterinarian</i>
M. J. HUGHES.....	<i>Veterinarian</i>
BERNARD J. DROLET.....	<i>Veterinarian</i>

Meat Inspectors

DANIEL KUHN	HARRY A. BRYDON
CHARLES EDELHAUSER	WILLIAM MERKLIN
JOSEPH HEARL	ARTHUR J. COKELEY
CHARLES ROSENZWEIG	

TUBERCULOSIS DIVISION

M. J. FINE, M. D.	Director
THOMAS BELL, M. D.	Clinic Physician
IRVING WILLNER, M. D.	Clinic Physician
JULIUS SOBIN, M. D.	Clinic Physician
LOUIS DAVIS, M. D.	Clinic Physician
JAMES V. JASO, M. D. ..	Clinic Physician

Visiting Nurses

EVA PRICE	HELEN E. GRACE
MARTHA I. HUNT	JEANNETTE STANLEY
CORNELIA WHITEHEAD	FLORENCE E. BECKER
RUTH LAPSLEY	EDYTHE BREIDINGER
FLORENCE B. SMITH	MAY WACKENHUTH
KATHLEEN B. O'TOOLE ..	Clerk Stenographer

CHILD HYGIENE DIVISION

JULIUS LEVY, M. D.	Director
ARTHUR J. ELLIS, M. D.	Clinic Physician
GIBBS CHISHOLM, M. D.	Clinic Physician
HARRY S. SILVER, M. D. .	Clinic Physician
CLARENCE S. JANIFER, M. D.	Clinic Physician
RALPH M. SHAPIRO, M. D.	Clinic Physician

Visiting Nurses

MEREDITH EHRRICH	MATILDA HUGGER
FLORENCE E. FREEMAN	PATRICIA McNULTY
EDITH C. BOYCE	SARA WELSH
LAUREL A. STREIT	LORETTA ELDER
IRENE MORRIS	ELIZABETH EGBERT
ANNA T. REILLY	ANNA GEIGER
ELIZABETH RUSSELL	HAZEL PADDOCK
MARGARET McNAMARA	FLORENCE M. SOULE
HILDA SCHOENHEIT	ROSE BOETSCH
EVE KRUEGER	HELEN HICKEY
BETATRICE McDONNELL	LILLIAN MUSTAPHA
ROSALIE GROSS ..	Clerk-Stenographer
ROSE CONDURSE ..	Cleaner and Helper

BUREAU VENEREAL DISEASE CONTROL

DR. H. J. F. WALLHAUSER.....	<i>Director</i>
DR WILLIAM T. RUMAGE.....	<i>Clinic Physician</i>
GRACE WEHR .	<i>Clerk</i>
ESTHER McLOUGHLIN.....	<i>Visiting Nurse</i>
JAMES CENTANNI	<i>Attendant</i>
JACOB F. SCHAEFFER	<i>Attendant</i>
MARY V. BRENNAN	<i>Attendant</i>
BERNARD ROONEY..	<i>Social Investigator</i>

Attendants

THOMAS MURRAY	JAMES V. ROWE
JOSEPH MANNING	EDWARD CERATO
	JAMES CAPRIO

DISTRICT PHYSICIANS

DR. WATSON F. L. RODEMANN	DR HENRY E. RICKETTS
DR. THOMAS J KELLY	DR MEYER JEDEL
DR SAMUEL ROTH	DR. M J. COFFEY
	DR. RAYMOND R GRASSO

PAROCHIAL SCHOOL INSPECTION

Nurses

ANNA FULTON	HELEN C. O'MALLEY
FLORENCE M MAWER	MARY E. CLINTON
SUZANNA A. SADLER	ANNA ROCK
SARA LAMBERT	EDITH EVANS
	ANNA MALONEY

CITY DISPENSARY

HENRY OLTMAN	Apothecary
ARTHUR F. WARREN	Assistant Apothecary
MELVINA RYAN	Record Nurse
ANNA L. MEYER	Visiting Nurse
FREDERICKA HAER	Visiting Nurse
FLORENCE BECKER	Visiting Nurse
NAN E. CALLAN	Visiting Nurse
DR. LEO J. McMANUS	Dentist
HYMAN FRIEDMAN, M. D.	Clinic Physician
NATHAN B. HEILER	Pathologist
DR. DAVID ROBINS	Pathologist
PHILIP BAYER	Massieur
CHARLES H. ROSE	Massieur
EDNA B. W. SMITH	Nurse-Masseuse
LOUISE MILLER	Masseuse
VAN S. HURLBURT	Janitor
ROSE MOORE	Cleaner
ANNA SIEBEN	Cleaner
MARY B. GRANT	Cleaner

LABORATORY

R. N. CONNOLLY, M. D.	Bacteriologist
H. A. TARBELL, M. D.	Assistant Bacteriologist
DR. LLOYD K. RIGGS	Assistant Bacteriologist
H. S. MARTLAND, M. D.	Pathologist
THOMAS CROGHAN	Junior Bacteriologist

Culture Collectors

HENRY LINFANTE	HUGH J. PURDY
MICHAEL MEOLA	
MARY FUREY	Laboratory Assistant
WILBUR FLOCK	Laboratory Assistant
BERNARD O'REILLY	Stableman
ARTHUR HARRINGTON	Clerk-Typist
JOSEPH A. MATTHEWS	Clerk-Typist
PAUL ADAMS	Laboratory Helper

ANNUAL REPORT

OF THE

Health Officer

ANNUAL REPORT
OF THE
Health Officer

*To the Honorable John F. Murray, Jr.,
Director, Department of Public Works.*

Dear Sir:

I have the honor of submitting to you herewith the report of the activities of the Department of Health for the year 1928.

Respectfully,

CHARLES V. CRASTER, M. D., D. P. H.,
Health Officer.

THE FORTY-FOURTH ANNUAL REPORT FOR NEWARK

As preventable methods are adopted to reduce the incidence of disease both epidemic and non epidemic, there appears much more generally in our annual reviews an apparent periodicity in the prevalence of some communicable infections. This appears to be more marked in the case of Measles and its attendant complication of pneumonia than of any other epidemic disease. These waves of general susceptibility or infection apparently occur at definite periods of two years, the intervening year being one of a lower incidence and mortality from the disease than the preceding year. The year 1928 was one of widespread measles infection in the city and was with the exception of 1926 the highest year for measles and pneumonia since the high peak experienced in 1920. The influence of such a year as the one experienced in 1928 upon the general health of the city has been constantly observed as a very material increase in the annual general death rate.

CAUSES OF EPIDEMICS

The greater number of epidemic diseases which have swept over enormous continental areas in the past were strictly diseases in which possibility of spread were directly questions of environment. Thus we had smallpox, plague, malaria, yellow fever, dysentery, typhoid fever, meningitis and tuberculosis. All these with the exception of tuberculosis, have ceased to be widely prevalent except in countries where poor living, lack of sanitation or destitution exist, either as a result of war or famine or where there is lack of developments in modern progress in civilization.

THE MODERN PLAGUES

With few exceptions there has been a remarkably lessened mortality of every type of contagious epidemic disease witnessed in the nineteenth and twentieth centuries. In Europe and this country, the medieval plagues have ceased to exist, except in isolated spots where bigotry or ignorance has interfered with the adoption of modern preventive methods, and in certain endemic areas in Asia or India. The same phenomenon has since been observed in those minor or less fatal infections which are prevalent all the time in all large cities in the temperate and sub-tropical zones. This group of diseases, although very diverse in symptoms, have one thing in common—that they are respiratory in type and are presumably contracted by similar means, usually the contact of the mouth secretions of the patient, with those of the susceptible individual.

CONTROL OF INFECTIONS BECOMING PERSONAL AFFAIRS

Public Health Departments have effected very remarkable improvements in the environment of the home, the first line of attack against unnecessary disease by these means attaining a higher standard of sanitary cleanliness and order. The second line of attack against promiscuous spreading of infection between the individual was directed to certain habits, such as promiscuous sneezing and spitting in public places. The third line of attack has been started and is already gaining widespread national support, the prevention of disease spread by foodstuffs in restaurants and hotels, by the sterilization of all food utensils and the physical examination of all food handlers. The fourth line of attack against preventable maladies, which must rest entirely in the hands of the individual, is the adoption of customs and habits which will minimize as far as possible contacts between the individual

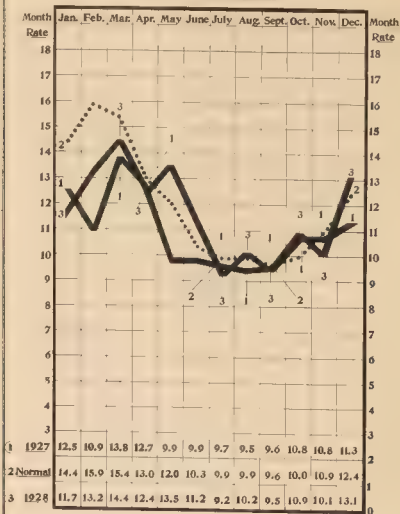
The handshake should go into the discard as an obsolete salutation of no practical value, and as a dangerous avenue of disease carriage. Preventable means already known to the public and backed by scientific knowledge should be more widely used, there are the various immunizing vaccines and serums for various infections. The value of typhoid immunization is already a matter beyond dispute and the same can be said for the diphtheria toxin antitoxin protection. More general attention should be directed to these vaccines which are produced for the prevention of colds and pneumonia, especially for the latter, which is gaining an ill-omened place in our mortality returns. Many of our diseases of later life may be the results of infection carried by the "common cold", and its abolition or curtailment as a community scourge is much to be desired.

MUCH PROGRESS IN TEN YEARS

So rapid and indeed spectacular has been the decline in epidemic diseases in nearly all civilized countries that the credit for the resulting improvement has become a widely discussed bone of contention by a variety of schools of health and social activities. The result has been that some groups have assumed an excessive claim in this reduction of disease and in doing so, sought to minimize or discredit the work of the others. It is questionable, in the long run, whether any factor other than improvement in the social and economic conditions of the home, and the more general adoption of sanitary living habits among the people, has in the past had much influence in assisting the receding tide of epidemic invasion. Quarantine, isolation and hospitalization of infectious ailments have done their part in educating the public to the dangers of infection, but widespread infection has usually already taken place in most families before the doctor is called or before the Health Department is notified of the existence of the disease. A factor that was given credit

Newark Seasonal General Mortality With Comparative Normal.

Rate per 1,000 Population



Yearly - Mortality - 1927- 10.9

" Normal " 11.8

" " - 1928- 11.6

for the decrease of many infections is the rising immunity of the population, accompanied perhaps by a decrease in the virulence or power of the infecting agent. Be that as it may, the mortality from many contagions has decreased very considerably in the city during recent years, as table below will show.

Disease Mortality	Rates per 100,000	
	1928	1908
Typhoid Fever	1.0	11.5
Scarlet Fever ..	1.2	29.2
Diphtheria	20.0	21.6
Whooping Cough	4.4	14.4
Tuberculosis (all forms)	86.9	260.7

The hope for the future in further improvements in health must wait upon the developments of science for the prevention of some of our epidemic infections, particularly measles and whooping cough. The total elimination of diphtheria and scarlet fever by toxin antitoxin immunization is now well within view and the intelligent backing of the public in making this a more general procedure for little children alone is needed to speed the day when these two scourges of childhood will be relegated to the public health lumber room and the museums.

COLD VACCINE SHOWS ENCOURAGING RESULTS

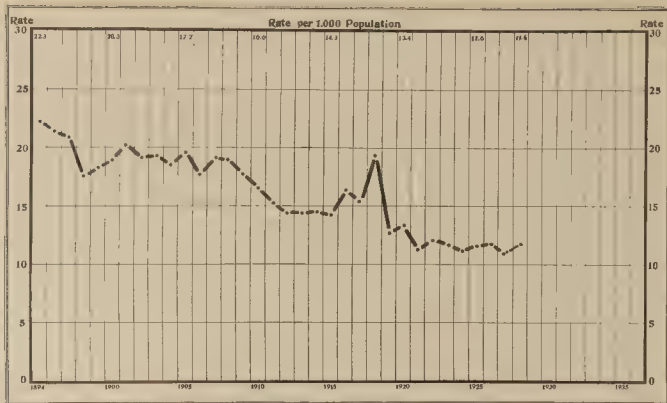
A small group of 26 persons were immunized in the Department clinics against colds by means of a stock "cold" vaccine. This vaccine contained two hundred million per cubic centimeter of each of the following bacteria found in common colds: *Micrococcus catarrhalis*, Friedlander's pneumonia bacillus, *Pneumococcus* types 1, 2, 3, *Streptococcus hemolyticus* and *veridans*, *Staphylococcus albus*, and *Staphylococcus aureus*. After six months these individuals were circularized as to the results, with the following information obtained. Nine reported "no colds" since immunization,

twenty-two reported fewer colds, and eighteen less severe colds. In seventeen out of the twenty-six individuals, health was stated to have been improved since the giving of the vaccine. There can be no doubt that a number of chronic catarrhal and nasal conditions exist in many people as a result of extreme susceptibility to the many types of bacteria responsible for "common colds", and provided that immunity can be increased by vaccines there should result improved health in persons who are willing to submit to this treatment. A more general attitude of willingness to try out such preventive methods on the part of the general public would result in the obtaining of much valuable data that will guide health departments in their efforts to solve the vitally important cold and pneumonia problem which annually takes its harvest of deaths and disability among the young and old.

DECENTRALIZING HEALTH ACTIVITIES

In recent years there has been clearly a need for a much closer association of the people and the Health Department in some of its activities. This has been particularly a requirement realized and met some years ago in Child Hygiene, and latterly in Tuberculosis control, and more recently still in the work of the Contagious Disease Division in so far as the relation to the immunization against typhtheria. To make effective the work of the Child Hygiene Nurse, Baby Welfare Stations have been placed in congested sections of the city where babies are brought for medical examinations and advice on baby welfare. Two of these stations were found to be well placed for desirable centers of health activities, so that the city possesses two well organized health centers carrying on Child Hygiene, Prenatal, Tuberculosis, Diphtheria, prevention, and social service activities, as well as fourteen others where Child Hygiene and Diphtheria prevention alone are taken care of. A further extension of these decentralized activities of the Health Department exists in

Newark's Annual Death Rates



Division of Vital Statistics, Dept. of Health, Newark, N. J.

the twenty five Parochial Schools scattered over the entire city, in which Diphtheria prevention work is done in all, and Dental Clinics are conducted in two. This development is in conformity with the modern idea that the school is the most logical place for carrying on programs of health publicity and education, among that portion of the public that represents the men and women of tomorrow. It is impossible to estimate the value in dollars and cents to the community of the health centers, all the opportunity they represent of closer contact with an audience that will be receptive of the new ideas in better living and better health.

CRUDE DEATH RATE HIGH FOR 1928

11.6 per 1,000

The number of deaths recorded in the City of Newark for 1928 was 5,735 from all causes, as compared with 5,086 deaths in 1927, an increase of 649 deaths.

The crude death rate for the city for 1928 is therefore 11.6 per 1,000 upon an estimated population of 474,000 for the year. The annual death rate is seven tenths of a point higher than that registered for 1927. The increased death rate for 1928 was due mainly to the epidemic of measles and pneumonia during the first few months of the year. The fatality from pneumonia alone exceeded that of the previous year by 153 deaths and the measles fatality by 44 deaths. The years of measles prevalence invariably raise the general mortality rate in a degree corresponding to the commonness or rarity of the pneumonia complicating each case. The following rates for deaths, births and infant mortality were recorded for the six years 1923 to 1928:

	1928	1927	1926	1925	1924	1923
Mortality Rate (crude)	11.6	10.9	11.8	11.7	11.2	11.7
Birth Rates	20.6	21.8	22.7	24.0	25.7	25.3
Infant Mortality Rates	63.8	63.3	71.9	68.7	65.2	68.0

ADJUSTED DEATH RATE

The crude death rate is estimated only upon the actual deaths of residents and non residents occurring within the city limits during any one year. It does not include the deaths of Newark residents outside the city but does include all non-resident deaths taking place within the municipal boundaries. Eliminating the non-resident deaths, of whom there were 523, and including the deaths of residents in institutions outside, who number 223, we have a total of 5,212 deaths, making an adjusted death rate of 10.9 per 1,000, as compared with 10.3 per 1,000 in 1927.

DECREASES IN MORTALITY

In a year of high mortality it is satisfactory to record fewer deaths occurring in the city under a number of special causes. The following table shows the decreased number of deaths from the principal causes during the year as compared with the previous year and the normal for a period of eleven years:

Decreased Deaths in 1928

Cause	1928	1927	De-crease	Nor-mal	Rate per 100,000
Organic Heart Disease.....	1,002	1,019	17	727	211.4
Apoplexy	356	373	17	346	75.1
Whooping Cough	21	31	10	28	4.6
Diarrhoeal Diseases (under 5 years)	78	82	10	133	16.1
Tubercular Meningitis	19	27	8	30	4.0
Puerperal Diseases	63	70	7	66	13.0
Scarlet Fever	6	12	6	11	1.3
Bronchitis	27	31	4	73	5.7
Poliomyelitis	4	6	2	4	0.8
Typhoid Fever	5	6	1	9	1.0

ORGANIC HEART DISEASE MORTALITY LOWER

Although organic heart disease still tops the mortality list as the most frequent cause of death, there is a lower mortality

during 1928 under this head. During the year there were 1,002 reported deaths as compared with 1,019 in 1927, a decrease of seventeen for 1928. Among these there was a greater frequency among males, 535 to 467 in females. It is interesting to note the increasing frequency of this cause of death at the later age periods, there being 776 deaths at 45 years and over (77.7 per cent of the total). The age period under 24 years was responsible for only 45, or 4.5 per cent. There is apparently from year to year a decreasing proportion of these deaths due to the acute heart conditions associated with epidemic or rheumatic infections, and a greater number due to the slowly progressive weakening of the heart tissue as a result of constitutional or middle age disease. There can be no doubt, however, that a number of these heart disease deaths of middle age had the origin of their disease in the infection of childhood, to the Scarlet Fever and Diphtheria or Rheumatic Tonsillitis, probably mild in type, but which at the same time no doubt did considerable damage to heart valves and the muscular structure of this important organ. Organic heart disease is a serious problem, whose solution will have to be attempted along lines of better living conditions of middle life, an intrusion of opportunity for annual health examinations, and a more consistent effort to determine the true cause of death, by autopsy, whenever there is a doubt of the condition that immediately caused death. It is generally acknowledged that heart disease as a cause of death is preventable, and at least a knowledge of its existence in the individual will go much by adjusting personal habits to extend the expectation of life.

APOPLEXY DEATHS LESS FREQUENT

Among the "wear and tear" diseases of middle life, apoplexy has always maintained a prominent place. There were, however, in 1928 fewer deaths from this cause, 356, as compared with 373 in 1927, a decrease of 17. It is remark-

able again in 1928 that this cause of death is not, as formerly, confined to men, but is becoming increasingly more common in women, the deaths for the year recorded 192 in women and 164 in men. Apoplexy is, of course, the final result of a general arterio sclerosis in middle or advanced life. Of deaths from this cause during the year, 9+ per cent occurred at 45 years and over. The more general attention to the importance of taking blood pressure readings even among the apparently healthy will do much to direct the attention of the individual to a process of destruction that is going on, silently and, unobserved, as a result of faulty living habits or the using up of vital resistance in body tissues.

LESS WHOOPING COUGH

There were 21 deaths from whooping cough during 1928, a decrease of 10 as compared with 1927. It is conspicuously a cause of death in the very young age periods, all the deaths occurring under five years of age and nearly half under one year of age. The particularly fatal character of whooping cough cannot be too much emphasized in our campaign to reduce the frequency of unnecessary caressing or kissing of children of tender years. This is important during epidemic season when the presence of carriers of the virus must be assumed to exist in considerable numbers among children as well as adults. The wearing of the arm band by children on the streets can only protect susceptible from the known cases of the disease, the unknown, undiagnosed, untreated cases must be legion in any community and a constant menace to the well. The control of whooping cough in our cities must wait for the development of all immunizing vaccine or serums which could protect all children under five years of age.

DIARRHOEAL DEATHS REDUCED

The deaths from diarrhoeal diseases under five years of age numbered 78 for the year, a reduction of 10 as compared

with the previous year. The deaths from this cause were in the past the main reason for high infant mortality rates which were generally attributable to the prevalence of summer diarrhoea. Cholera infantum or summer diarrhoea has nearly ceased to exist as an annual harvest of babies' lives. Among the 78 deaths the months of June, July and August were responsible for only 23 fatalities, or 29 per cent of the total, although the age period at death in all instances was 87 per cent under one year.

PUERPERAL FEVER MORTALITY LOWER

The deaths from puerperal fever and puerperal septicemia during 1928 numbered 63, a decrease of seven as compared with the preceding year. The age period at death was 12 deaths from 15 to 24 years, 21 at ages 25 to 44 years and 16 at 45 to 64 years. The decrease in these deaths, many of which are preventable, is, let us hope, the result of the campaign carried on by the Essex County Maternal Welfare Commission against methods that could reflect upon the care of the mother at child birth. In the present classification, however, of these deaths, it is impossible to give a fair picture of real maternal mortality inasmuch as abortions, criminal and therapeutic, are necessarily included in the gross total of puerperal deaths.

DEATHS FROM SCARLET FEVER

1.2 per 100,000

Among the epidemic diseases of childhood there are few that have a worse record than scarlet fever as a highly fatal infection. Only within recent years has the picture changed and the disease become less potent to cause death, or those grave complications which have shortened or made miserable the lives of little children. Scarlet fever, formerly prominent as a cause of death in children, amounted to a rate of 33.8 deaths per 100,000 in 1894, now has receded so that in

1928 there were only six deaths from this cause, half the number recorded for the previous year and establishing a rate of 1.2 per 100,000 of the population. The type of disease has considerably modified inasmuch as the deaths are fewer in spite of at times quite large epidemic proportions, the case fatality seldom rising higher than 2 per cent. This is remarkable as a modern experience of diminished virulence, for dating from the time of Tydenam few diseases could compare with scarlet fever in its range of incidence and fatality. The present age mortality shows deaths at all ages up to 14 years, showing in this way that immunity to the disease is only very slowly acquired as age advances. It may be that susceptibility to scarlet fever is lifelong in the individual, and that immunity is obtained only in the discarding of habits that farther close contact and the rapid passage of infection between individuals.

DEATHS FROM POLIOMYELITIS LESS FREQUENT

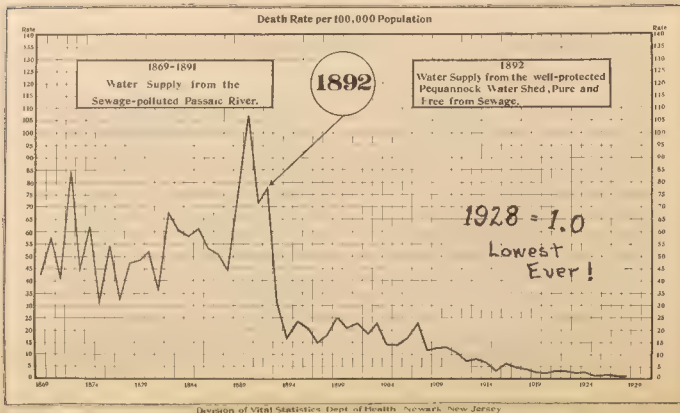
Ever since the great pandemic of infantile paralysis in 1916, there has been an occasional year of more than usual mortality from the disease. The year 1928 was unusually free from such deaths, there being only 4, as compared with 6 for the previous year. All the deaths were in males and at age periods up to 14 years. The virus of the disease, whatever it may be, is probably conveyed by well persons, probably adults, and only certain children appear to be susceptible, so that one child in a family is usually selected as the victim. It is significant that the deaths occurred only in the summer, one each in July, August, September and November. The proper control of this infection is still a matter of surmise.

RECORD LOW-TYPHOID FEVER RATE FOR 1928

Typhoid fever, formerly a disease of environment, is now one generally contracted by close contact with a carrier of the disease, either an ambulant case or one that has remained

Newark's Water Supply Greatly Reduces Typhoid Fever Menace

Remarkable Decrease in the Last Few Years



infective long after active symptoms have disappeared. During 1928 there were five deaths reported as due to typhoid fever within the city, making a typhoid fever rate of one per 100,000. This is the lowest rate ever recorded for this disease and is a further testimonial, if any were needed, to the benefits of hygienic living. The history of the disease in Newark is a replica of similar results in other cities, as soon as polluted water supplies are changed to clean and well protected sources. From an average annual mortality of around 45 per 100,000 onwards since 1869, with occasional epidemic flare ups such as in 1890, when it was over 105 per 100,000, the disease and death rate has fallen steadily. In 1892, when the new Pequannock water supply became available, the rate was 78 per 100,000. Two years later, it reached a low mark of 16.7, and is now the lowest ever recorded.

INCREASED MORTALITY FOR 1928

The deaths under certain specified causes were increased during 1928 as compared with 1927. This group includes epidemic as well as systemic conditions, as the following table will show:

Increased Mortality

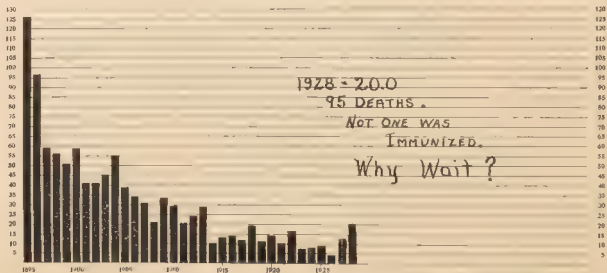
Rates per 100,000	Cause	1928	1927	Increase	Normal
133.3	Pneumonia	632	479	153	600
9.9	Measles	47	3	44	19
20.0	Diphtheria	95	62	33	50
62.9	Bright's Disease	298	260	32	417
86.9	Tuberculosis	412	387	35	428
74.7	Accident	354	334	20	303
7.6	Influenza	36	23	13	36
103.6	Cancer	491	480	11	379
3.0	Meningitis	14	8	6	16

MEASLES AND PNEUMONIA

Among the group of increased mortality, by far the greatest increases are under the head of epidemic diseases

Mortality from Diphtheria

(Rate per 100,000 Population)



Measles and pneumonia are associated conditions which always make for high mortality in city populations. During 1928 there were 632 deaths due to pneumonia, an increase of 153 above the previous year. Deaths recorded as actually due to measles numbered 47, as compared with only 3 in 1927. Age periods under five years were responsible for 41 out of the 47 deaths from measles (83% of the total). Measles has long been reported as typically a seasonal disease but it frequently becomes epidemic in all months, although more generally in the winter. The case fatality has, however, decreased somewhat in recent years and is now usually about 2% of the reported cases. This, of course, would be higher if we could trace the numerous deaths from pneumonia which occur at such times as due to a missed or undiagnosed case of measles. The estimates, therefore, of case mortality in measles are not always accurate as the terminal pneumonias following upon measles symptoms are so marked as to escape diagnosis. Mortality from measles diminishes with age either as a result of increasing immunity or due to the fact of its very general prevalence in the lower age periods.

DIPHTHERIA

20 per 100,000 in 1928

With the exception of smallpox, there is no more remarkable evidence of the control of a formerly fatal disease by biological methods than in the case of diphtheria. In 1895, the year previous to the general introduction of antitoxin, the death rate from diphtheria in Newark was 126.6 per 100,000 population. Since that date the rate steadily decreased to a record low of 4.6 per 100,000 in 1926. In recent years, however, diphtheria mortality has again shown an increase year by year so that in 1928 there were 95 deaths recorded from diphtheria, a rate of 20 per 100,000 population. We have to go back fifteen years for any rate that will

compare with the one for 1928, when the diphtheria rate was 28.0 per 100,000. The age periods at death show that 64 occurred at ages under five years, 67.3% of the total falling in the pre-school years, the remainder being at ages from 5 to 14 years. The sex incidence shows 58 deaths in females to 37 in males.

Case Fatality

The case fatality for the general population was 7%, 6.2% for the white and 14.6% for the colored. At age periods under 1 year the fatality was 23.8%, between 1 and 2 years 20.3%, between 2 and 5 years 10.9%, total under five years 12.7%; between 5 and 15 years the case fatality was 4.0%, and over 15 years 0.8%.

High Rates Among Colored Children

Estimating the colored population as around 32,000, the diphtheria death rate was high for the year, 56.2 per 100,000, as compared with 20.0 per 100,000 for the white. The case fatality, that is, the ratio of deaths to the reported cases, was also high among these people, in fact more than double that of the whites, 14.6 as compared with 6.2.

Diphtheria Statistics, 1928, by Color

	Total	White	Black
Population	474,000	442,000	32,000
Diphtheria Cases	1,362	1,238	123
Diphtheria Deaths	95	77	18
Morbidity Rate CM	287.3	280.0	384.0
Mortality Rate CM	20.0	17.4	56.2
Case Fatality, Per Cent	7.0	6.2	14.6

Age Statistics

	Under 1	1 and Under 2	2 and Under 5	Total Under 5	5 to 15	Over 15
Cases .	21	69	411	501	743	118
Deaths .	5	14	45	64	30	1
Fatality	23.8%	20.3%	10.9%	12.7%	4.0%	.8%

Antitoxin

Investigation shows an increasing fatality as the time elapses between the onset of symptoms and the giving of the diphtheria antitoxin. In the cases under review 38 deaths, 39.9% of the total, occurred within 24 hours of the giving of the antitoxin. We have clearly here the treatment of diphtheria by antitoxin long after any chance of saving the patient is possible. All these children must have been in extremes when brought to the attention of the physician, or the hospital authorities, and must have had symptoms slight or otherwise sufficient to call the attention of parents to the ailment at least ten days previous to the death of the patient. Fatal results in others of these cases occurred frequently at quite long periods of time after receiving antitoxin, in two cases 35 days, and in one 67 days after acute symptoms had subsided. These were manifestly cases where grave damage had been done to vital organs as the result of failure to give antitoxin sufficiently early in the acute period, when large amounts of toxin are in the victim's circulation.

The symptoms of these cases must have been extremely grave, for the majority of them, 52 out of 95, had been hospitalized on the advice of the attending physician.

In eleven instances, no doctor had been in attendance upon the patient, the cases being picked up in receiving rooms or hospital clinics and immediately transferred to the Isolation Hospital. Three children died so quickly, one in a doctor's office and another in a receiving room, that there was no time for antitoxin to be given.

Physicians Acted Promptly

The record of these cases shows that the physician was prompt in his diagnosis and the giving of antitoxin. In 48 cases (50%), antitoxin was administered at the first visit.

23 cases (24.2%) on the following day; and in 13 cases (13.6%) the administration had been delayed until the third day after symptoms became manifest.

Quick Action Necessary in Diphtheria

The deaths recorded for the year from diphtheria emphasize the great need for parents to be suspicious of all throat conditions in children and the vast importance of calling the doctor early.

Non-Immunized Child Always in Danger

It appears, of course, to be an anomalous situation that such a high diphtheria mortality should exist in 1928, side by side with a steadily increasing number of immunized children in our Public and Parochial Schools. It is entirely probable that this large unimmunized group are more or less at various times carriers of virulent germs of the disease, although unable to manifest any symptoms of their infection. This means that the susceptible, or non-immunized child, is surrounded constantly by an increasing number of children who carry virulent germs in their throats, and yet be well enough to play and attend school in the usual way. If this is the case, then, as the group of non-immunized children becomes smaller and smaller, so much more possible will be the danger of contracting diphtheria from well-plethoric and pupae in schools. It must be a case of protecting all children or having a majority of the child population always in danger of being exposed to diphtheria.

No Deaths from Diphtheria Among Immunized Children

Among the many thousands of children immunized against diphtheria in this city there has been no instance in 1928 or any other year of any deaths from diphtheria. Protection from diphtheria, however, is limited to the immunized indi-

individual, who may harbor germs of no damage to himself, but possibly a threat for the next person to whom they may be passed on.

Reasons for High Mortality

The conclusion to be reached as to the causes of high mortality from diphtheria in the city must be sought for in the high magnificancy or virulence of the virus so generally present during 1928 in the Northern part of New Jersey. There may be also present with this strain of virus few urgent or overt symptoms of sufficient gravity to draw the attention of parents to the dangerous ailment affecting the child. The survey shows overwhelmingly the fact that the majority of the children who died must have been sick for some time before the doctor was called and antitoxin given. The main lesson to be drawn from this useless slaughter of children's lives is the absolute necessity of having children immunized against diphtheria at the earliest possible moment after the first six months have passed. A great responsibility rests with the parents who neglect to have this procedure carried out, inasmuch as all diphtheria is now considered preventable and deaths for the disease a crime against our modern civilization.

MORE CANCER AND BRIGHT'S DISEASE DEATHS

There was an increase of 32 deaths from Bright's disease and 11 deaths from cancer during 1928 as compared with 1927. The majority of the fatality from both these diseases in middle and later life was at 45 years and over. In the case of Bright's disease 77.6% of the deaths were at this age period, and for cancer 82%. The majority of the deaths from Bright's disease were in males, 163, to 145 for females. These positions were reversed in cancer, in which more females died, 273 as compared with 218 males.

With the advent of middle life there is a sudden fall in the prevalence and fatality from epidemic diseases whereas

there is increasing death rate from the diseases of physical decay. It is, of course, impossible to stop the oncoming of old age, but much can be done to slow up the processes of excessive waste of tissue resistance. There is no panacea against the withering of all organic life that has its period of seeding, flowering and decay. All that can be done is to remove these habits of life and existence that unnecessarily bear upon vital organs so that worry or excessive labor may not blunt and finally overcome our focus of repair. Man will never live forever, he may, however, do much to make his span of life more nearly approximate the three score years and ten of Biblical tradition.

TUBERCULOSIS RATE 86.9 PER 100,000

The record low mortality from tuberculosis in 1927 of 82.9 per 100,000 was not maintained in 1928. The total deaths from the disease numbered 412, an increase of 25 over the previous year, making a rate of 86.9 per 100,000 population. The curve of tuberculosis mortality in the past thirty years has shown a steady decline from a high rate of 246.3 in 1894 to the present rate established for 1928. From time to time there occurs a setback due to the presence of epidemic diseases such as influenza and pneumonia, or to economic and social problems affecting health. The year 1928 was one of high pneumonia prevalence and mortality, which is undoubtedly reflected in the increased tuberculosis rate for the city. There has also been some evidence that fashion in women's dress has tended to increase the number of deaths in girls between 15 and 24 years. Attempts to prolate the sought-for slim figure in growing girls has no doubt in many cases brought about favorable conditions for the onset of tuberculosis at all ages when tissue resistance is low to this type of infection. Among the total fatalities from pulmonary tuberculosis for 1928, 22.4% occurred in age periods 15 to 24 years and 43.1% at ages 25 to 44 years.

COLORED TUBERCULOSIS RATE HIGH

287.5 per 100,000

There is an increasing number of deaths in this city from year to year among the colored. The 92 colored deaths from pulmonary tuberculosis in 1928 represents a high rate of 287.5 per 100,000 upon an estimated colored population of 32,000. Whether this mortality represents a racial lack of resistance to tuberculosis among this group or whether it seems as a result of insufficient opportunity for acclimatization to Northern conditions is not as yet sufficiently clear. This high rate calls certainly for some very definite effort to get at the real causes of this situation.

WHITE AND COLORED MORTALITY COMPARED

1928

	Total	White	Black
Population	474,000	442,000	32,000
Deaths	5,735	4,948	787
Death Rate	11.6	11.2	24.6
Births	9,802	8,718	1,080
Birth Rate	20.7	19.7	33.7
Deaths under 1 year.....	626	477	149
Infant Mortality Rate.....	63.9	54.7	137.9
Pneumonia Deaths	632	492	138
Pneumonia Death Rate	133.3	111.3	431.2
Tuberculosis Deaths	412	307	105
Tuberculosis Death Rate	86.9	69.5	328.1
Diphtheria Deaths	95	77	18
Diphtheria Death Rate	20.0	17.4	56.2
Congenital Deb. and Malf.....	358	277	81
Congenital Deb. and Malf. Rate.....	75.5	62.6	253.1

ACCIDENTAL DEATHS AGAIN SET RECORD

There were 324 deaths from accidents in the city during 1928, an increase of 20 over the previous year. The fatalities due to automobiles again head the list for this cause of death.

with 115 deaths, four less than last year, when the high point was reached. It is notable that the young age periods are largely represented in the automobile deaths, 36.5 per cent of them being at ages under 19 years. Automobile accidents are usually due to carelessness or indifference to the dangers of the street. It cannot be too much emphasized that traffic nowadays flows with so much greater rapidity than formerly that a new orientation is necessary on the part of the pedestrian to the hazards of taking a chance. Children should not be allowed to play upon the roadways of busy thoroughfares nor sent upon messages that involve crossing such places. Quick thinking is necessary for crossing lines of traffic and children are not always capable of safeguarding themselves amid these perils. Deaths due to falls numbered 77 in 1928. The greater number of these were in adults above 20 years of age, 85.7% of the total under this head.

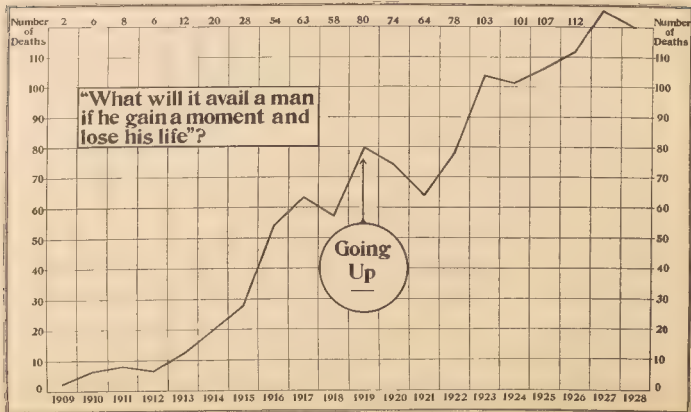
Deaths Due to Illuminating Gas Commonest in Aged

Deaths from illuminating gas numbered 39, 27 in males and 12 in females, only one of these deaths being under 5 years of age. An investigation carried out by inspectors of this department every year has shown that conditions surrounding many of these deaths point to suicide, while others are undoubtedly accidental. The age at death is also indicative of conditions of physical weakness in the victim which led to the accident, 18 out of the 39 were in individuals over 60 years of age (46.1%).

Children Victims of Burns and Scalds

The picture is somewhat different with deaths due to burns and scalds, among the 29 deaths so recorded for the year, 10 were in children under 5 years of age (34.4%). Such deaths are entirely preventable, inasmuch as they have been found usually to be due to lack of supervising children in kitchens

Automobile Accident Deaths in Newark, N. J., 1927--119, highest ever



of homes. Research shows the necessity of the eventual development of a cooking stove high enough to be out of reach of little children or provided with a guard rail which would prevent the upsetting or pulling over of pans containing boiling liquids. The deaths due to alcoholic poisoning numbered 13 for the year, an increase of 9 over the figures for 1927. All these deaths were in adults, mostly between 20 and 60 years of age.

Drowning Accidents All Among Males

Drowning accidents were responsible for 11 deaths, 6 being at age periods between 5 and 19 years. It is notable that all the drownings were in males, the same situation occurring also in the year 1927. Deaths due to fractures numbered 11, and of these 9 were at ages of 60 years and over. The effects of heat were responsible for 5 deaths, all occurring in males. An unusual accident from which death occurred was that due to a parrot bite in an adult male.

Street Car Accidents Rare

The remarkable freedom from fatal accidents due to street railways, only one death being reported for the year, indicates the care and skill of the drivers of street cars in the midst of traffic conditions which are yearly increasing in complexity. The results are no doubt due to the very careful schooling and instructions that motormen receive before being put in charge of our street cars.

LOWEST BIRTH RATE ON RECORD

20.6 per 1,000 Population

The total number of births recorded for 1928 was 9,802, making a birth rate of 20.6 per 1,000 upon an estimated population of 474,000. The steadily retreating birth rate was again evident in 1928, which establishes another low record in our annual number of births. The highest birth rate recorded

for the city was 30.9 in the year 1911. It has been an observed fact within recent years that birth rates have tended to fall in large cities, although the phenomenon has been one observed on a nationwide scale. As space becomes congested in our cities and residential sections pre-empted for business purposes, there will be an increasing tendency for married people to take up residences in our suburbs and country places. The automobile and other means of rapid transit make possible a greater commuting distance between the home and the office so that the city will be increasingly used only for industry and business. The large families of old days are also very infrequently met today. Appearances would indicate the average American family to seldom exceed two children, with the one child as the most frequent occurrence. Among the 9,802 births recorded for 1928, 5,390 were reported from hospitals, 55%. There is evidently an increasing tendency to hospitalize all obstetrical cases in the city, as the records of the last few years clearly indicate, with a corresponding decrease in the number of deliveries in the home. There is an increasing number of births attended by physicians, 79%, as compared with a decreasing number, 21%, in which a midwife was in attendance. In the home deliveries, however, the midwife attended 42% of this total.

Births by Physicians, Midwives, at Home and Hospital

	1928	1927	1926	1925	Rate			
					1928	1927	1926	1925
Total	9,802	10,042	10,852	10,852	20.7	21.5	22.7	23.9
Hospital	5,390	4,995	5,003	4,845	55%	49.7	47.8	44.6
Home	4,412	5,047	5,457	6,007	45%	50.3	52.2	55.4
Physician	7,809	7,704	7,958	8,053	79%	76.7	76.1	74.2
Midwife	1,993	2,338	2,502	2,799	21%	23.3	23.9	25.8
<i>Home Births—</i>								
Physician	2,419	2,709	2,955	3,208	55%	54.0	54.0	53.0
Midwife	1,993	2,338	2,502	2,799	45%	46.0	46.0	47.0

INFANT MORTALITY RATE**63.8 per 1,000 Births**

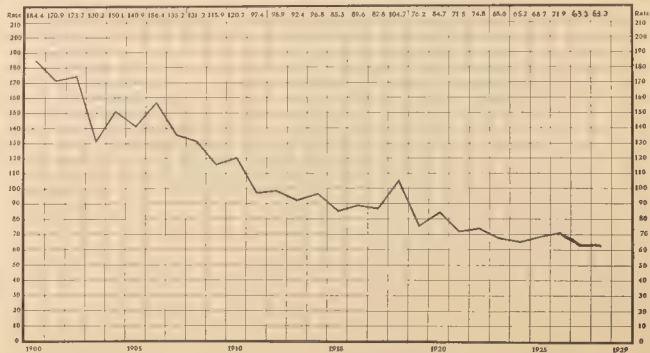
There were 626 deaths under one year of age during 1928, making an infant mortality rate of 63.8 per 1,000 upon 9,802 births for the year. This is an increase of .5 above the rate for 1927, which was 63.3 per 1,000 births. This rate, considering the high mortality from respiratory diseases during 1928, is a particularly satisfactory record following the record low rate of 1927. Had the number of births for 1928 equalled those recorded for 1927, we would have had a record low rate of 62.3 per 1,000. The increased infant mortality rate was not due, however, entirely to a decrease in reported births, as there was an increase of ten in the deaths under one year of age, and an increase of eight in the deaths due to diarrhoeal diseases. Among the deaths under one year, 97 were due to pneumonia, 68 to diarrhoeal diseases, 11 due to measles, and 10 to whooping cough. Fatalities due to congenital debility under one year numbered 35, or 56.8 per cent of the total deaths at this age.

CRUDE DEATH RATE AMONG COLORED HIGH**24.6 per 1,000**

The colored population of Newark has by reason of economic demand increased at a greater rate than the white, within the last ten years. This population is, however, somewhat fluctuating and seasonal inasmuch as many individuals go South to visit families and relatives during the Summer and do not return. The mortality rates among the colored are therefore calculated upon an estimated annual population increase, which in 1928 was placed at 2,000, making the estimated colored population 32,000 for the year 1928. There were 787 deaths reported among the colored during the year, making a crude death rate of 24.6 per 1,000. This rate is more than twice that for the whites, which was 11.2 per 1,000.

Newark's Infant Mortality Rates

Deaths under one year of age per 1,000 living Births



Division of Vital Statistics, Dept. of Health, Newark, N.J.

By far the greater number of these deaths appear under the cause of pneumonia and tuberculosis, with organic heart disease a close third.

RESPIRATORY DISEASES STILL THE GREAT PROBLEM

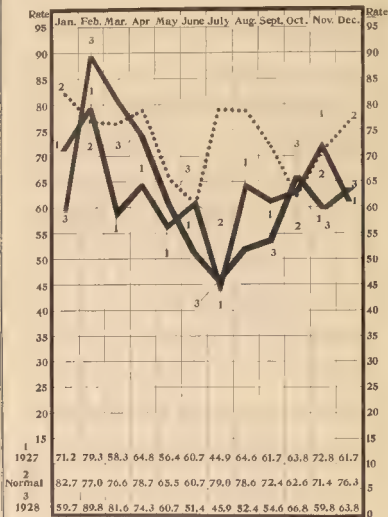
Acute or chronic respiratory diseases were again responsible for high mortality among the negroes of the city, 253 deaths or 32.1% of the total mortality was due to this one cause. Much of this mortality is preventable, could the individual family be instructed in the proper hygiene of living in cold climates. As it is, the laborer moves North looking for work with a light hearted indifference as to the hazards of the climate he is going to. The same holds good for his family that accompanies or follows him at a later date. Clothing and food and methods of living are nearly always on Southern standards, with a superabundance of vegetables and fruit and a total lack of meat and fat, so necessary to build up resistance to cold. Children are frequently not properly clothed to resist the rigors of Northern climatic changes, with the result that pneumonia is easily contracted and the negro who contracts pneumonia, adult or child, is a bad risk indeed. The pneumonia death rate for 1928 among the white population was 111.3 per 100,000, and among the colored 431.2 per 100,000. Emigration North should be begun in the Spring and early Summer and not in the late Fall and Winter months.

NEGRO TUBERCULOSIS RATE

328.1 per 100,000

There were 105 deaths from tuberculosis among the colored during 1928, making a tuberculosis rate of 328.1 per 100,000 as compared with the white rate of 69.5 per 100,000. Although the majority of the negroes contract tuberculosis

Infant Mortality, Newark, N.J.



Yearly Infant Mortality - 1927 - 63.3

" Normal " " - 76.3

" " " - 1928 - 63.9

as a result of living and working conditions here, there is quite a large number of instances where the infection dates back to the home in the South. The hazards to the colored laborer in the North are severe enough if he is in good health, but where the seeds of tuberculosis are already sown it is virtually a death sentence to expose the infected negro to the rigors of the Northern Winter. The colored child also makes but a poor fight against the epidemic infections of the North. Among the 95 deaths from diphtheria during 1928 there were 18 among negro children, making a death rate from diphtheria of 20.2 per 100,000 as compared with 17.4 per 100,000 for the whites.

COLORED INFANT MORTALITY RATE

137.9 per 100,000

Among the 626 deaths under one year recorded in the city for 1928, there were 149 colored deaths making an infant mortality rate of 137.9 per 1,000 births, as compared with a rate of 54.7 per 1,000 births among the whites. The deaths ascribed to congenital debility were also higher among the colored, making a rate of 253.1 as compared with 62.6 for the whites.

COLORED BIRTH RATE HIGH

33.7 per 1,000

There is an increasing number of births among the colored in the city, the number recorded for 1928 was 1,880, making a birth rate of 33.7 per 1,000 population as compared with a white birth rate of 19.7 per 1,000. The ratio of births to deaths among the colored is, however, not so wide as that for the whites, 787 colored deaths from all causes to 1,080 births as compared with the whites 5,735 deaths to 9,802 births. Were the colored population not recruited continually from the South we should have a nearly stationary colored population from year to year in our Northern cities.

EPIDEMIC DISEASES HIGH IN 1928

There were 21,365 reportable diseases recorded for the year 1928, an increase of 6,290 as compared with the figures for 1927. The whole of this increased prevalence of disease can be put down to measles, of which there were 6,329 cases in 1928, as compared with 413 reported cases in 1927.

The following table shows certain reportable diseases recorded for 1928 as compared with 1927:

Disease Reports	1928	1927	Increase	Decrease
Measles	6,329	413	5,916	.
Whooping Cough	1,621	2,143		522
German Measles	1,296	121	1,175	
Chickenpox	1,377	2,312		935
Mumps	777	2,038		1,261
Lobar Pneumonia	1,696	1,327	369	.
Broncho Pneumonia	1,155	725	430	.....
Diphtheria	1,362	696	666	.
Scarlet Fever	972	1,422	..	450
Tuberculosis	932	889	43	
Influenza	775	286	489	.
Epidemic Meningitis	36	15	21	.

MEASLES THE GREAT PROBLEM

The measles epidemic in 1928 covered very completely all the wards of the city; none were spared irrespective of race or color. There is apparently no immunity to measles in the very young, and it is not certain that as age advances any immunity is acquired against the disease. Measles apparently attacks the old and the young and is only stayed when all the susceptibles have passed through its ordeal. Coming along in rather ill-defined cycles of two years it flares up, so to speak, like a bush fire, racing from one section of the city to another with great rapidity. In 1928 measles rapidly spread to all parts of the city. There can be no doubt that infection is spread before the rash appears in the child, and during that

period of acute coryza which unfortunately so closely resembles an ordinary cold in the head, placarding, quarantine, and isolation fail to stay its spread, and all administrative public health measures appear merely as gestures of safety. The use of serum obtained from persons who have passed through an attack, to be used as a prophylactic in exposed children, has a promising field, but we have here the difficulty in obtaining this immune serum in any but small amounts, for donors are few and the price at times prohibitive. We have here a problem for the scientist and the research scholar. It may be that in the absence of the discovery of the infecting agent of measles some closely allied virus will be discovered which will confer immunity as happened in the case of Lister's discovery of cowpox as the protecting agent against smallpox. Certain it is that measles will continue to sweep our cities at its stated intervals, taking a high toll of precious children's lives, until some adequate prophylactic agent comes to the assistance of humanity.

NON-FATAL EPIDEMIC DISEASES

As virulent and highly fatal epidemic diseases have receded, there has been disclosed, so to speak, a host of non fatal maladies which seem to be more or less prevalent every year in city areas. The most prominent of these are German measles, chickenpox and mumps. Although the year 1928 showed a lessened prevalence of chickenpox and mumps, there was on the other hand a great increase in German measles cases, 1,296 in 1928 as compared with 121 in 1927. These diseases are never attended by mortality but their infective nature would indicate the presence of many susceptible individuals.

NON-FATAL EPIDEMICS CAUSE ECONOMIC LOSS

It is, of course, undesirable to rate the importance of any epidemic by its high mortality alone, for the reason that widespread non fatal diseases may cause great economic loss not

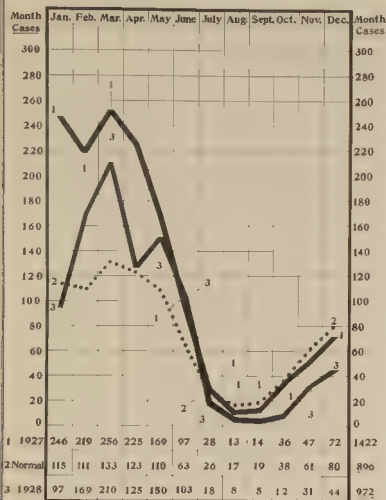
only in the amount of sickness caused but also in the interference with school attendance. The question has been asked how far are such diseases controllable? It is the experience of most health departments that in spite of all the usually accepted methods of supervision these diseases will riot unrestrained among us. As in the case of measles, it is safe to assume that the infecting agent is present in the nose and throat in the early stages of the disease and before any characteristic evidence such as rash or swollen glands are present. The control of these diseases is very much in the hands of parents, who should keep apart from other members of the family children who are sick with undefined symptoms until the physician can be called to make a diagnosis. The official control of German measles is necessary by reason of its being a possible case of scarlet fever, chickenpox, in adults, and among the colored sometimes turns out to be a case of smallpox.

WHOOPIING COUGH CASES LESS

In spite of the high prevalence of measles in 1928 there were fewer cases of whooping cough reported during the year, 1621 cases, 522 less than in 1927. Whooping cough is apparently losing some of its power to produce fatal results. In a survey conducted in 1922 it was shown that the mortality from whooping cough had decreased in ten years 41% in the registered cities of the United States, and 54% in the registered rural districts. In the cases and deaths reported in the city during 1928 the case fatality was only 1.2%. Whooping cough is a serious disease especially in the very young, so that it is a matter of great importance to separate children and children under five years of age immediately whooping cough is diagnosed to protect children of the family. There is every reason to advocate the use of the whooping cough vaccine for susceptible infants who have been exposed to infection.

Scarlet Fever Morbidity

Actual Cases With Comparative Normal



SCARLET FEVER CASES MUCH FEWER

The reported cases of scarlet fever numbered 972 for 1928 a reduction of 450 as compared with 1927. Scarlet fever as a disease is becoming less fatal than formerly, although it still exists from time to time in widespread epidemics. The type experienced in this city in recent years is of so mild a nature that the work of the diagnostician of the Department has been particularly onerous. Parents of children have been hard to convince that a disease so slight in character can be the Logey so often held up to them by their parents and older relatives. The disease, however, still manifests great malignancy when resistance is low, or when there is a natural susceptibility to the virus. Much of this mortality has, however, been reduced when the use of the scarlet fever antitoxin serum has been resorted to, and there is no doubt of the value of the Dick test as a diagnostic method. The case fatality for the reported cases for 1928 was 0.6 per cent.

THE MEDICAL EXAMINATION OF FOOD HANDLERS

C. V. CRASTER, M. D., D. P. H.

Health Officer, Newark, N. J.

The fundamental principle upon which organized society is based is the effort to insure the welfare of the group. This means that the individual was required to relinquish some what of his personal liberties or inclinations that his fellows might benefit. It thus may be said that the modern ideals and standards adopted for sanitation and hygiene are somewhat based upon an inherited tendency towards self-defense. Epictetus, the famous stoic and moralist, writing in the first century A. D., said, "The natural instincts of animated life to which man also is originally subject is self preservation and self interest. But men are so ordered and constituted that the individual cannot secure his own safety unless he contributes to the common welfare." This is even truer of modern life than in the case of the older civilizations. In fact so intimate are the associations of each man with his neighbors that the far seeing citizen may only hope to secure his own comfort and welfare and to protect himself and his household from untimely disease and even death by seeing that the same protection is afforded to all those he comes in contact with. Thus it comes about that the prevention of communicable diseases in whatever form this can be carried out, like the provision of a clean water supply, or an efficient sewerage system, must of necessity be community efforts. In the production of good food there are three definite points that are basic in their necessity. First, that the foodstuff shall be of good quality free from adulterations, substitutions, or evidence of spoilage. Secondly, that it be produced in clean, well-built, well-lighted and properly cared for premises, where the food can be protected from dust, dirt, flies or pol-

luting matter, and thereby, that it be produced by food handlers who are physically free from communicable disease and whose methods shall be directed towards as little contamination of the food as possible, consistent with modern methods. Two of these requirements are covered efficiently by suitable laws in nearly every State of the Union. The third, which can only be secured by a routine medical examination at stated periods of the year, is not as yet universally employed and yet would seem to be the logical sequel to the other two. The knowledge that dangerous diseases are possible of conveyance by food served in public kitchens and restaurants does not require proof here, and shows the need for concerted action to preserve the health of the consumer.

The striking story of "Typhoid Mary" and those of the other well known typhoid carriers, including our own "Typhoid Tony," a man who had to his credit 35 cases of typhoid fever and 3 deaths in the City of Newark, and 72 cases and 3 deaths in the State of New Jersey, before he was finally rounded up and segregated, are still fresh in our memory and have done more than anything else to focus the attention of the public upon the common hazard of the ambulatory carrier of disease germs in his relationship to foods served in restaurants, lunch rooms and hotels.

The physical examination of food handlers was therefore the logical reply to the query of health experts and the public as to what should be done about this new danger to community safety. That the examinations of food handlers passed from the realms of theory to those of accomplished facts was due to the efforts of the New York City Health Department. This unique enterprise was inaugurated some fourteen years ago in New York under the direction of Dr. Louis Harris, who stated the results of the first two years in the following words: "It is only a beginning, but one whose significance and ultimate possibilities may well be

called impressive. The manifold benefits that may ultimately accrue from this system must be left to the imagination of those who have glimpsed the possibility of preventive medicine and especially of adult hygiene and periodical medical examination."

The work so well begun was naturally at first tentative, with the hope that experience would demonstrate the best procedures to serve so great a venture in disease prevention. Difficulties in the form of medical service soon arose, partly due, no doubt, to the inexperience of the private physicians who were called upon to assist the health department in making the physical examination. The occupation clinics conducted by the department were handicapped by their limited staff, and yet the work done was clearly more satisfactory than that of the private physician. In one year the occupation clinics conducted by Harris made 23,386 medical examinations to 59,000 by the private physicians. Yet out of 127 cases of active tuberculosis found, 118 were diagnosed at the occupation clinics. This result clearly indicated either faulty knowledge on the part of the private physicians or methods so lax as to show complete indifference to the importance of the procedure.

In the New York experiment, a very complete medical examination was attempted which raised the important question as to whether the true reason for food handler examinations had been met in this way. Is it desirable or necessary in such a procedure for a municipality to undertake to look for all physical defects or only for the presence of contagious diseases? This question is important from the point of view of the expense of the service that shall be rendered, and the quality of the expert advice needed. From the aspect of the spread of communicable diseases, the sanitary examination embracing that for contagion alone may be clearly differentiated from the form of examination required by insurance



Taking Histories of Food Handlers

companies and life extension institutes. On the other hand, the physical examination of food handlers described by Gloyne (JAMA May 13, 1922), as carried out in Kansas City, Kansas, is apparently directed towards contagious conditions alone, and in this respect principally venereal diseases, although the desirability of a mental examination is suggested by the health commissioner.

It is clear that the medical examination of food handlers as a health measure need not be as comprehensive nor directed toward the finding of physical defects of a non-contagious nature which, although informing and perhaps reme-

diable upon a broad scale, do not affect the usefulness or desirability of the food handler as an employee.

It is thus virtually immaterial to the health administration whether the food handler under its jurisdiction be suffering from flat foot or spinal curvature, whereas it is very vital to know of the existence of tuberculosis or diphtheria in such employees.

In the main, public health authorities must necessarily take a broad-minded attitude with regard to the prevention of disabling diseases and, indeed, toward the maintenance of health itself as a community asset. This view, however, must give way to the more pressing need of determining the necessary freedom from contagion of those who are doing work in such intimate contact with the public as that of serving food and drink.

In the case of the City of Newark the necessity for such an activity had been clearly brought to our attention by the repeated reports of tuberculosis and venereal infection among the cooks and waiters of the city. The examination planned covered only the elementary steps to determine the presence of the common infections. Thus, a thorough chest examination to be made for tuberculosis, an examination for skin diseases or eruptions, a routine throat swab, a Widal test for typhoid fever, and in males the examination of the external genitals for venereal diseases. Such an examination would at least provide the minimum safeguards against infection by food. Sufficient authority for such an examination existed in the New Jersey Sanitary Code, where, in regulation 37 states: "Any waiter, cook or other person employed in any hotel, restaurant, boarding house or other place where cooked food is offered for sale, who handles or prepares food, may be required to submit to a physical examination by a medical inspector of any local board of health or the State Department of Health for the purpose of ascertaining whether or

not he is affected by any communicable disease, whenever in the judgment of the health officer such an examination may be necessary."

To further extend the requirement of physical examination, and to authorize the use of private physicians if the department so wished, an additional city ordinance was passed in 1918 which brought all food handlers under its provisions.

Under this authority the examination of food handlers was started in 1920. The food handler coming most intimately in contact with cooked foods, such as employees of restaurants and hotels, were required to appear at the Department of Health clinics for examination. Where food handlers, such as milk handlers, soda fountain operators, etc., could present a certificate from a reputable physician they were accepted under the guidance of the latter, and to standardize this examination, a letter of instruction was issued to all physicians making such examinations, giving the minimum requirements of the medical examination.

The following is an outline of the instructions sent to the private physicians who may be authorized to make these examinations and describes the general routine of the examination in the Health Department clinics:

DEPARTMENT OF HEALTH, NEWARK, N. J.

Division of Food and Drugs

INSTRUCTIONS FOR PHYSICIANS MAKING PHYSICAL EXAMINATION OF FOOD HANDLERS

External Examination of Body

The examination of the skin should be directed to detect the presence of skin diseases such as eczema, psoriasis, abscesses, cuts, wounds or abrasions. The presence of any skin

disease is sufficient to cause rejection of the applicant. The attention of the examiner is called to the probable association of skin diseases with syphilis. Where such is suspected a Wassermann blood test will be required.

Chest and Lungs

The physical examination of the chest must include all known procedures for the determination of chronic pulmonary diseases. Percussion and auscultation must be accompanied by direct measurements with estimation of chest expansion. Any abnormal chest condition found is sufficient cause for rejecting the applicant pending further examination, including the taking of a sputum specimen for laboratory observation. Where there is doubt of pulmonary conditions, an X Ray should be required of the applicant. Where cough, emaciation, temperature or other clinical conditions indicate an active or suspicious condition, the suspect must be required to submit to an examination by an expert from the Department of Health.

Nose, Mouth, Throat, Etc.

The examination of the nose, mouth, teeth, throat, ears and eyes must be directed towards the discovery of acute or chronic conditions of an infective nature, especially where pus conditions are present. Where there is a discharge, swabs shall be taken for examination.

Special attention must be directed to the presence of sore throat, enlarged tonsils or other chronic throat conditions. Chronic discharges of the nose, ears or eyes, chronic conditions of teeth, pyorrhea or foul breath, must not be passed. Such cases shall be refused certificates until the condition has been cleared up.

Contagious Disease

The examination shall cover the thorough examination of the skin of the body for rashes and desquamation as well as possible discharges from the nose, ears or eyes

A Widal blood test will be required where there is evidence of exposure to typhoid fever or a history of a previous attack of the disease. Where there is no evidence of vaccination as shown by a well-marked scar, or where no revaccination has been carried out within a period of seven years, revaccination will be required.

Venereal Disease

The examination for venereal disease will, in case of males, require a routine inspection of the organs. Where suspicious sores or discharges are present, swabs shall be taken and where syphilis is suspected a Wassermann blood test must be made. For women, the examination for venereal diseases will not require the physical examination of special organs except where symptoms or statements indicate probable infection. Refusal to allow such further examination will be sufficient cause for denial of a certificate.

General Instructions

All laboratory tests taken by physicians from applicants for food handler's certificate shall be sent immediately to the Food and Drug Division, Department of Health, William and Plane Streets, Newark, New Jersey.

All such laboratory material shall be properly checked and include a list of persons examined and their number as designated on the card. No entry shall be made on the space marked "Serial Number."

If at any time the Department of Health has reason to believe that an additional examination is needed, it reserves

the right to refuse any health certificate until convinced that proper and complete examination has been carried out and the applicant free from suspicion.

CHARLES V. CRASTER, M. D., D. P. H.,
Health Officer.

P. S.—All defects found are required to be reported forthwith to the Department of Health.

Food handlers now being brought in for examination include restaurant waiters, waitresses and kitchen help, soda fountain assistants, grocery and delicatessen helpers, food factory employees, including bakers, confection and candy makers, dairy workers and milk wagon drivers, ice cream makers and venders. It is intended to cover all food handlers as soon as facilities are available. At the present time, 90% of all examinations are made in our own clinics. The medical facilities are provided in our Health Department Building with its various special clinics and is in immediate charge of the Director of the Tuberculosis Division, the staff carrying on the work numbering four paid part time doctors and one full time and one half time nurse. Examination hours are from 10-11 A. M. and 3-4 P. M. daily. The applicants' histories are taken in duplicate, one retained by the Tuberculosis Division and the other taken by food handlers to the various clinics where the examination is made for lungs, skin, venereal disease and any other evidence of contagion. A specially careful examination is made of the mouth for bad teeth, pyorrhea and bad tonsils or lesions of the mucous membrane, with special reference to discharge from the ears, nose and eyes. A routine swab is not taken unless throat and nose conditions are suspicious. Where indications call for blood specimens, Wasserman or Widal, smear or culture, these are taken. Each special clinic doctor O. K.'s the history card. The male is required to have an examination

of the extended periods for venereal disease by a physician attached to the Venereal Disease Bureau, the remedies are recommended and the patient is free from venereal infection. The applicant, after examination, if approved, takes the bus to the Food and Drug Division, where a good



Examination at Skin Clinic

lander's card is issued together with printed advice as to personal hygiene. Where there is doubt as to positive diagnosis for any reason whatsoever, the applicant is given a re-examination slip and a temporary card is issued, this is usually for a week or a month, according to the wishes of the examining physician. When an applicant is rejected, the doctor notifies the Food and Drug Division, which in turn notifies the employer and employee in writing. The cause for the rejection is never given to the employer.

The food handler's card is good for six months. In order to prevent too great a number of applicants appearing for examination at one time a "stagger" system has been adopted. Restaurant workers' cards expire January and July, milk and grocery cards March and September, etc. Various colored cards are used for different occupations and each contains a complete description of the applicant, color, weight, height, eyes, hair, etc., to prevent its use by another. Food handlers are required to retain the cards in their possession at all times and be able to show them to the visiting inspector. Any employee found working who has been rejected, or any employer permitting a food handler to work without a card is liable to the penalty, which includes not only a fine, but a jail sentence too.

Since August, 1920, there have been 81,892 examinations of food handlers made in the city clinics. The number has increased yearly from the 2,314 examinations made in 1920. As stated before, no special effort was made at this examination to determine physical defects, so that the analyses of figures were of interest only where contagion was found. The following conditions were found:

FINDINGS AT FOOD HANDLER EXAMINATION CLINICS

Year	Number of Examinations	Number of Re-examinations	Positive for Tuberculosis	Suspects for Venereal Disease	Positive for Venereal Disease	Referred to Skin Clinic	Typhoid Carrier	Temporary Cards Issued	Referred to Asthma Clinic	Number of Vaccinations	No of Cultures	No of Widal's
1920	2,344		26		10	42						11
1921	4,525	625	48		18	12						11
1922	6,213	712	24	75	8							11
1923	6,585	751	20	44	3							11
1924	7,589	796	20	18	4		1	10				11
1925	9,865	938	17	42	10			14				11
1926	11,910	1,148	9	98	34	10		93	1	57	2	15
1927	13,112	447	8	67	32	2		67	2	96	1	8
1928	16,779	356	3	123	54	10		56		30	4	12
Totals	81,892	5,773	175	467	173	76	1	240	3	183	7	35

Tuberculosis

Inasmuch as by far the greater number of the re-examinations made were for chest conditions, we will consider these in relation to the positive tuberculosis found. The number of positive tuberculosis cases found in this period, 175 out of 5,775 re-examinations made, 0.3%, is apparently a low one. It is explained partly by the fact that many of these conditions were due to common colds, and that in other cases the food handler discontinued his work after the preliminary examination, preferring to seek other employment than to be discharged as a result of physical disability. Others put under special treatment and advised to rest at subsequent examinations had no clinical symptoms. Some of these cases were observed for many weeks and every effort consistent with public safety was made to keep these people on their jobs. The positive tuberculous cases to the thousand examined each year was as follows:

1920	9.0	per 1,000 examinations
1921	9.0	" " "
1922	6.0	" " "
1923	3.3	" " "
1924	2.6	" " "
1925	1.7	" " "
1926	0.6	" " "
1927	0.6	" " "
1928	0.3	" " "

This is a comparatively low incidence for the disease among a special group of industrial workers and very much below that assumed to be existing in the general population. The large number of suspicious cases required repeated examinations and observations with laboratory controls such as sputum and X Ray findings. No definite diagnosis of tuberculosis was made without such confirmatory evidence being at hand. The positive cases were of course immediately rejected and refused food handling cards. Many of the

rejected applicants were unaware of their condition and expressed surprise at their rejection. One of the most gratifying results of this examination was that the actual cases of tuberculosis were put under proper medical treatment and the early cases given an opportunity for immediate sanatorium treatment.

Venereal Diseases

Among the 81,892 examinations made to date, 173 positive cases of venereal disease were found out of 467 held as suspicious. This group of workers was, therefore, remarkably free from such infections, the percentage being 0.2 of the whole number examined. Under this head no diagnosis of venereal disease was made without a positive smear showing the specific organism in gonorrhea and a positive Wassermann or a positive dark field diagnosis in the case of syphilis. These results were in contrast with the findings of Gloyne, who apparently found venereal diseases extremely common among the food handlers of Kansas City. His examination, however, included a routine vaginal examination and smear from an unusual group of women food handlers. Gloyne very rightly rejected all venereally infected persons from handling food. This stand has been criticised by Ashburn (JAMA, June 3, 1922) and Iovine (JAMA, June 24, 1922). There can be in my opinion little said in favor of allowing venereally infected persons to carry on this line of business. In the case of gonorrhea there is always the possibility of the spread of ophthalmia among the employees. The associated pus condition in these cases cannot be regarded as free from danger to the public. In the case of syphilis at least with active lesions in the mouth and throat by tasting food or the use of glasses and cups. In any case, although actual cases of such accidental infection may be infrequent, it is none the less our duty to prevent as far as possible in our power so abhorrent a possibility. The case of the syphilitic with no

open lesion with perhaps even a four plus Wassermann is different. Such a person may conceivably be allowed to handle food provided that proper anti-syphilitic treatment is being received and the medical care checked up by the Bureau of Venereal Disease.

Skin Diseases

Only 76 cases of skin disease were noted at these examinations. It is noteworthy that 54 of these were in the first two years of the procedure. In the succeeding four years there were no such lesions found. This is a signal result of the educational work accomplished by the examination. It indicates to us that the employees go under immediate treatment for such condition and also that the restaurant or other employer refuses to engage individuals for this class of work when suffering from skin eruptions. Although some skin diseases were diagnosed as non-contagious, the position taken with regard to such infection was that it was undesirable to have individuals so afflicted handling foodstuffs. Although it is conceded that many types of streptococci are found normally upon the skin, it was considered that the contagion of boils and carbuncles was especially virulent and capable of being conveyed to food. The virulence of such germs found in milk during epidemics of sore throat must not be forgotten in this regard.

Vaccination

A satisfactory evidence of vaccination was required to be shown and when this was over seven years, revaccination was required. The 240 vaccinations carried out in this period show a high degree of protection among these people against smallpox.

Typhoid and Diphtheria

It is noteworthy that among this large number of examinations of food handlers only one typhoid carrier was found.

Although a routine Widal test was taken during the first four years not a case was discovered by this means. The carrier was not among a group of waiters as a result of infecting a fellow employee. For a while a stool culture had been taken. Surveys among the thousands of throat cultures



Food Handlers, Having Been Approved, Receiving Their Identification Certificates

taken during these years not a single case of diphtheria was detected. This result was mainly due to the special laboratory efforts made to establish the identity of suspicious organisms. Any positive Widal test was followed up by a special investigation of the suspected individual. Special tests for virulence were done in the positive throat cultures. The results of this intensive follow up clarified in a surprising

way conditions which were at times disconcerting. The routine Widal blood test and throat cultures have now been abandoned and are only carried out when clinical observation show their necessity.

Cost of Operation

An estimation of the cost of this work can only be approximate, inasmuch as the employees concerned have other duties besides that of the food handler work. Giving half of the time of the Director and four clinic physicians of the Division of Tuberculosis to this work, as well as the full time and half time of two nurses, three-quarters of the time of one clerk, half of the time of another and a quarter the time of a third, we can state the expense as follows annually:

Director of Tuberculosis Division, half time..	\$1,750 00
Four Clinic Physicians, half time	1,860 00
One whole-time and one half-time nurse ..	3,000.00
Three clerks, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$ time	2,430.00
	<hr/>
	\$9,040.00

This does not include, of course, heat, light and use of building nor the service for laboratory investigation. With this expenditure, the total cost for 16,779 food handlers in 1928 was fifty-three cents (\$ 53) for each examination made.

Summary

During the eight years the examinations have been carried on by this Department, there has been little or no opposition to the examinations by the owners of restaurants and eating places and we have received the full co operation of the various labor unions, and even among the employees themselves it is not considered a hardship, as the law is enforced

al. around. It acts as a bar to the employment of the sick and diseased who would compete by accepting lower wages and longer hours.

It has been asked, "Is the physical examination of food handlers possible for small communities in the light of its cost for specialized assistance?" The answer will depend upon the point of view and whether a medical or a sanitary inspection is contemplated. If the latter, the necessary examinations may be made by any well equipped physician employed by a local board of health assisted by a good laboratory to carry out any special test required for diphtheria, typhoid fever and venereal disease. On the other hand, a complete medical examination means the employment of many experts.

Granted that the expense for this special activity can be met, are the results worth while? Although the findings of the examinations for a period of eight years in the City of Newark indicate that contagion is not more prevalent among food handlers than among any other body of industrial workers, the evidence gathered showed in the first few years that many were being employed in the advanced stages of tuberculosis. That this condition has been almost entirely eliminated is due undoubtedly to the semi-annual examination. Skin diseases are rarely found among applicants while venereal diseases in the contagious state are frequently found. These results indicate the value of the routine examination inasmuch as in no other business is there so much danger of spreading infection as between infected food handlers and the consumer, the safeguarding of the public in this way is well worth while. There was observed even in the first few months of the procedure, a remarkable effect upon the general appearance of the food handlers. There was a sprucer,

healthier, more wide-awake and intelligent appearance among all of them. There was an evident elimination from among this group of workers of the cheap labor of diseased persons from other occupations who might seek the lighter and more elastic hours of restaurants and lunch counters. This is particularly important among the food-handling class for the reason that many are part-time workers being frequently recruited from the married women and mothers of families who have some of their day at their disposal.

From the point of view of preventive medicine, there can be little doubt that the physical examination of food handlers has come to stay, taking its place with the supervision of mother and baby and the medical inspection of school children as a community effort to control disease and prolong the span of life, which the public can justly demand as a necessary municipal undertaking.

CRUDE DEATH RATES FOR NEWARK, ACCORDING TO CENSUS AND INTERCENSAL ESTIMATED INCREASES

(Rate per 1,000 Population)

Year	Population	No. of Deaths	Death Rate
1894	. 203,923	4,543	22.28
1895	. 215,725	4,615	21.37
1896	. 225,000	4,716	20.96
1897	. 230,000	4,010	17.43
1898	. 235,000	4,303	18.30
1899	. 240,000	3,537	18.90
1900	. 246,070	5,006	20.34
1901	. 250,000	4,806	19.22
1902	. 255,000	4,943	19.38
1903	. 266,000	4,923	18.50
1904	. 272,000	5,378	19.77
1905	. 283,239	5,025	17.74
1906	. 290,000	5,551	19.14
1907	. 300,000	5,724	19.08
1908	. 305,000	5,207	17.07
1909	. 311,000	5,529	17.77
1910	. 347,469	5,764	16.64
1911	. 352,000	5,337	15.16
1912	. 370,000	5,423	14.65
1913	. 380,000	5,562	14.63
1914	. 395,000	5,809	14.70
1915	. 375,000	5,382	14.30
1916	. 385,000	6,357	16.50
1917	. 405,000	6,205	15.30
1918	. 430,000	8,483	19.72
1919	. 440,000	5,534	12.57
1920	. 414,216	5,551	13.40
1921	. 425,000	4,774	11.24
1922	. 432,000	5,209	12.06
1923	. 439,000	5,221	11.67
1924	. 446,000	5,004	11.22
1925	. 453,000	5,310	11.67
1926	. 460,000	5,606	11.85
1927	. 467,000	5,086	10.90
1928	. 474,000	5,735	11.63

**DEATHS FROM VARIOUS CAUSES—RATES PER
100,000 POPULATION, 1894-1928**

Year	Scarlet Fever	Typhoid Fever	Diph- theria	Tuberculosis (all forms)
1894	33.8	16.7		246.3
1895	16.2	23.2	126.6	225.3
1896	7.6	20.9	96.9	247.6
1897	23.5	14.3	59.6	223.0
1898	6.4	17.4	56.6	260.0
1899	14.2	25.0	51.7	260.0
1900	22.4	20.3	58.1	274.7
1901	9.2	22.8	41.2	252.0
1902	18.0	18.4	41.2	258.8
1903	26.7	23.7	45.1	269.9
1904	44.1	14.7	55.1	284.9
1905	15.9	14.1	38.8	275.7
1906	11.7	17.2	34.1	293.4
1907	13.7	23.0	31.7	265.7
1908	29.2	11.5	21.6	260.7
1909	22.5	12.5	33.8	245.6
1910	11.2	12.7	29.9	233.7
1911	6.0	10.5	21.0	200.8
1912	3.0	7.0	24.6	161.1
1913	6.9	7.9	28.0	192.9
1914	6.8	6.6	10.4	171.1
1915	1.6	2.9	13.1	215.5
1916	1.8	6.0	14.8	203.4
1917	0.7	4.2	12.3	202.5
1918	2.6	3.5	19.1	185.6
1919	2.7	2.0	11.3	144.8
1920	2.9	1.9	14.9	130.4
1921	5.9	2.8	10.4	104.9
1922	3.5	2.8	16.9	99.1
1923	1.1	2.5	7.7	92.5
1924	1.8	2.7	8.7	87.9
1925	2.0	1.1	9.3	83.4
1926	1.3	1.5	4.6	91.5
1927	2.6	1.3	13.3	82.9
1928	1.3	1.0	20.0	86.9

MORTALITY UNDER SPECIAL HEADINGS, 1918-1928

CAUSES	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918
Total, All Causes	5,735	5,206	5,206	5,410	5,111	5,221	5,209	4,776	5,551	5,534	8,483
Infantile Paralysis	4	6	1	8		4	1	4	7	2	6
Typhoid Fever	5	6	7	5	12	11	12	12	8	9	15
Malaria		0		110	1						
Smallpox		0		0							
Measles	47	3	69	9	16	41	46	13	50	7	120
Scarlet Fever	6	12	6	5	8	5	15	25	12	12	11
Whooping Cough	21	31	26	21	34	19	28	25	56	4	54
Diphtheria	95	62	21	42	39	34	73	44	62	50	82
Influenza	36	23	23	13	19	72	57	18	222	267	1,387
Epidemic Meningitis (Cerebro Spinal)	14	8	4	8	10	15	16	11	16	22	45
Other Epidemic Diseases	5	3	1		1			1	1	2	1
Tuberculosis of Lungs (Consumption)	366	335	368	335	346	357	377	392	470	552	683
Tuberculous Meningitis	19	27	30	20	21	17	31	33	34	41	61
Other Tuberculosis	27	25	23	23	25	32	20	21	36	44	54
Chronic Malignant Temperature	494	480	478	493	493	406	379	408	368	368	331
Non-Febrile Malignant	35	36	16	30	34	12	24	24	39	30	35
Apoplexy Softening of the Brain	356	373	353	359	357	336	346	315	297	307	319
Coronary Heart Disease	1,052	1,016	948	850	779	727	640	510	492	529	672
Bronchitis	2	3	15	0	70	78	84	73	105	98	178
Pneumonia, All Types	463	312	394	315	320	328	319	235	454	432	1,029

MORTALITY UNDER SPECIAL HEADINGS, 1918-1928—Continued

CAUSES	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918
Pneumonia, bacterial	278	167	281	209	195	219	252	147	302	213	469
Other Respiratory Diseases	74	58	73	73	70	88	91	95	84	57	92
Diseases of the Stomach (Cancer excepted)	40	36	43	50	55	41	63	46	45	53	71
Diarrhoeal Diseases (under 5 years)	78	82	128	120	132	133	187	210	244	295	331
Appendicitis and Typhoid	94	89	108	84	76	90	81	65	60	54	64
Hemorrhoidal Abdominal Pain	47	54	51	43	54	44	45	41	36	49	64
Cerebrovascular Disease	47	42	37	26	41	30	34	38	32	42	51
Bright's Disease and Nephritis	298	266	331	343	399	340	346	417	507	504	629
Diseases of Women (not Cancer)	23	25	16	21	23	12	9	3	4	11	6
Puerperal Septicemia	14	14	9	20	14	19	18	18	22	14	11
Other Puerperal Diseases	49	56	57	61	63	33	40	56	45	42	42
Congenital Deformity and Malformation	358	358	383	376	356	376	362	403	402	345	442
Old Age	57	37	40	48	26	42	46	28	34	34	27
Accident	354	334	334	333	296	338	257	241	278	304	389
Homicide	29	35	36	31	28	32	30	20	14	26	20
Suicide	82	76	65	54	50	56	54	68	47	56	50
Ill-defined Causes	4	24	28	46	22	13	10	1	2		2
ALL CAUSES	899	751	794	821	756	791	816	715	664	659	640
Yearly Death Rate per 1,000...	11.6	10.9	11.8	11.7	11.2	11.7	12.1	11.2	13.4	12.6	19.7

**TABLE 1928 DEATHS AND CAUSES AS COMPARED
WITH FIVE-YEAR PERIOD, 1924-1928**

The following table shows the total number of deaths from each given cause together with the percentage of each cause contributed to the total:

CAUSES	Number of Deaths 1928	Percent of Total	Number of Deaths 1924-1928	Percent of Total
Total All Causes	5,735	100.00	27,195	100.00
Infantile Paralysis	4	0.1	19	0.07
Typhoid Fever	5	0.1	35	0.13
Malaria			1	
Smallpox				
Measles	47	0.8	144	0.54
Scarlet Fever	6	0.1	37	0.10
Whooping Cough	21	0.4	126	0.47
Diphtheria	95	1.6	259	0.95
Influenza	36	0.6	114	0.42
Epidemic Meningitis (Cerebro Spinal)	14	0.2	44	0.17
Other Epidemic Diseases	5	0.1	10	0.04
Tuberculosis of Lungs (Consumption)	366	6.4	1,750	6.44
Tuberculous Meningitis	19	0.3	117	0.43
Other Tuberculosis	27	0.5	123	0.46
Cancer, Malignant Tumor	491	8.6	2,365	8.68
Simple Meningitis	35	0.6	151	0.55
Apoplexy Softening of the Brain	356	6.2	1,798	6.61
Organic Heart Disease	1,002	17.5	4,548	16.72
Bronchitis	27	0.5	243	0.99
Pneumonia, Lobar	404	7.0	1,905	6.64
Pneumonia Broncho	228	3.8	1,080	4.00
Other Respiratory Diseases	74	1.4	368	1.35
Diseases of the Stomach (Cancer excepted)	40	0.7	224	0.82
Diarrhoeal Diseases under 5 years	78	1.4	549	2.02
Appendicitis and Typhlitis	94	1.6	451	1.66
Hernia, Intestinal Obstruction	47	0.8	249	0.92
Cirrhosis of Liver	47	0.8	193	0.72
Bright's Disease and Nephritis	298	5.3	1,637	6.02
Diseases of Women (not Cancer)	23	0.4	108	0.37
Puerperal Septicæmia	14	0.2	81	0.31
Other Puerperal Diseases	49	0.9	286	1.05
Congenital Debility and Malformation	358	6.2	1,831	6.73
Old Age	57	1.0	208	0.76
Accident	354	6.2	1,631	6.00
Homicide	29	0.5	159	0.58
Suicide	82	1.4	327	1.20
Ill-defined Causes	4	0.1	124	0.46
All Other Causes	899	15.7	4,000	14.71

BIRTHS AND DEATHS BY WARDS, 1928

Ward	Population	Births	Birth Rate	Deaths	Rate
1.	34,602	660	18.6	292	8.0
2	19,454	185	9.5	219	11.2
3	38,614	587	15.2	453	11.7
4	14,228	107	7.5	177	10.2
5	23,861	444	18.5	228	9.8
6	23,250	349	15.1	279	10.2
7	19,550	325	16.6	228	10.2
8	35,537	710	20.0	511	11.6
9	41,638	840	20.0	459	11.0
10	26,017	588	22.5	269	10.3
11	23,991	379	15.8	266	11.1
12	29,072	473	16.3	238	8.1
13	43,909	947	21.5	503	11.5
14	41,295	725	17.5	368	8.9
15	18,305	300	16.4	187	10.2
16	40,677	752	18.5	429	10.5
Non Resident		1,431		526	
Total		9,802			
Male		4,972			
Female		4,830			
White		8,718			
Colored		1,080			
Yellow		3			
Red		1			
Illegitimate		160			
			Not known	94	

**PERCENTAGE DISTRIBUTION BY AGE PERIODS FROM PRINCIPAL CAUSES
OF DEATH IN NEWARK, N. J., 1928**

CAUSES OF DEATH	TOTAL DEATHS		UNDER 5 YEARS		5 to 24 YEARS		25 to 44 YEARS		45 to 64 YEARS		65 YEARS AND OVER	
	Deaths	Per Cent	Deaths	Per Cent	Deaths	Per Cent	Deaths	Per Cent	Deaths	Per Cent	Deaths	Per Cent
Measles.....	47	100 0	41	87 2	6	12 8						
Whooping Cough.....	21	100 0	21	100 0								
Diphtheria.....	95	100 0	64	67 4	30	31 6					1	1 0
Influenza.....	36	100 0	3	8 3	5	14 0	11	30 5	11	30 5	6	16 7
Pneumonia (M. pneumoniae).....	632	100 0	211	33 4	49	7 8	125	19 8	148	23 4	99	15 6
Bronchitis.....	27	100 0	11	40 7	2	7 4	2	7 4	5	18 5	7	26 0
Tuberculosis of Lungs.....	466	100 0	3		88		158		102		15	
Diarrhoeal Diseases (Under 5 years).....	78	100 0	78	100 0								
Congenital Debility and Malformations.....	358	100 0	358	100 0								
Bright's Disease.....	298	100 0	3	1 0	15	5 0	49	16 5	119	39 9	112	37 6
Apoplexy.....	356	100 0			2	0 6	19	5 3	138	38 8	197	55 3
Organic Heart Disease.....	1002	100 0	8	0 8	69	6 9	149	14 9	379	37 8	397	39 6
Accidents.....	354	100 0	29	8 2	75	21 2	93	26 4	99	28 0	58	16 3

DEATHS FROM ACCIDENTS FOR YEAR 1928

Cause of Accidents	Totals						Males						Females					
	All Ages 1928	All Ages 1928	Under 5 years	5 to 19	20 to 59	60 and over	All Ages	Under 5 years	5 to 19	20 to 59	60 and over	All Ages	Under 5 years	5 to 19	20 to 59	60 and over		
Conflagrations	0	3		3			1		1			2		2				
Poisoning, Alcohol	4	13		1	11	1	9			8	1	4		1	3			
Effects of Heat	3	5	1	1	3		4	1		3		1		1				
Few the	1	3		1	2		3		1	2								
Fertility, Latching Excepted	1	3			3			3		3								
Drowning	6	11	1	6	3	1	11	1	6	3	1							
Steam Railways	19	10		1	8	1	10		1	8	1							
Street Railways	2	1			1		1			1								
Motorcycle	0	1		1			1		1									
Self-sufficiency, Bad Clothing	2	1	1									1	1					
Elevator	0	5			5		5			5								
Machinery	11	8			8		8			8								
Poisonings	7	7	1	1	5		3		1	2		4	1			3		
Fractures	3	11		2		9	3		2		1	8					8	
Burns and Scalds	41	29	10	3	13	3	17	5	3	7	2	12	5			6	1	
Excessive Cold (Freezing)	1	2			2		2			2								
Illuminating Gas	27	39	1		20	18	27			15	12	12	1			5	6	
Falls	68	77	4	4	51	18	58	3	3	42	10	19	1	1		9	8	
Parrot Bite	0	1			1		1			1								
Other Accidents	14	9	2	3	3	1	9	2	3	3	1							
Automobiles	119	115	8	14	49	24	90	6	22	41	21	25	2	1		8	1	
Totals	523	354	29	61	188	76	260	18	44	154	50	88	11	17	14	26		

MORTALITY SUMMARY FOR 66 CITIES—1928

Yonkers	9.8	Omaha	12.8
Canton	9.8	Salt Lake City	12.8
Flint	10.0	Philadelphia	12.9
Cleveland	10.2	New York	13.0
Duluth	10.2	Washington	13.1
Somerville	10.3	Worcester	13.5
Seattle	10.4	Syracuse	13.6
Fall River	10.5	Buffalo	13.8
Youngstown	10.6	Columbus	13.9
Minneapolis	10.7	Indianapolis	13.9
Grand Rapids	10.8	Knoxville	14.0
Fort Worth	10.9	San Francisco	14.1
Milwaukee	11.1	Louisville	14.1
Lynn	11.2	Kansas City, Kan	14.1
Tacoma	11.2	St Louis	14.2
Schenectady	11.3	Kansas City, Mo	14.2
Springfield	11.4	Trenton	14.2
Des Moines	11.4	Baltimore	14.3
Newark	11.5	Richmond	14.3
Detroit	11.5	Boston	14.4
New Haven	11.6	Pittsburgh	14.7
Oakland	11.6	Spokane	14.8
Cambridge	11.7	Utica	15.4
Dayton	11.7	Denver	15.8
Wilmington	11.8	Atlanta	16.2
Dallas	12.1	San Antonio	16.3
Providence	12.2	Albany	16.5
Rochester	12.2	El Paso	16.5
Jersey City	12.2	Birmingham	16.8
Camden	12.3	San Diego	18.6
Chicago	12.5	Nashville	18.7
Toledo	12.5	New Orleans	19.1
Paterson	12.7	Memphis	19.3

Newark's annual death rate for the year of 1928 is the nineteenth lowest out of sixty-six cities.

CLASSIFICATION OF BIRTHS IN 1928

		Rate per 1,000 Population
Males	4,972	10.5
Females	4,830	10.2
Total	9,802	20.7
White	8,718	18.4
Colored	1,080	2.3
Yellow	3	
Red	1	
Illegitimate	160	0.4
Stillbirths	383	0.8

YEARLY BIRTH RATE PER 1,000 POPULATION
(1900-1928)

1928	20.7	1913	28.4
1927	21.5	1912	29.3
1926	22.7	1911	30.0
1925	24.0	1910	29.6
1924	25.7	1909	30.8
1923	25.3	1908	29.2
1922	25.4	1907	27.9
1921	27.5	1906	26.0
1920	28.3	1905	25.1
1919	25.7	1904	25.8
1918	27.0	1903	26.4
1917	29.1	1902	25.2
1916	29.7	1901	24.0
1915	29.2	1900	24.8
1914	29.0		

ANNUAL MORBIDITY AND MORTALITY RATES FOR THE YEAR 1928 IN CITIES OVER 100,000 POPULATION

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RATE PER 100,000 POPULATION

DEPARTMENT OF PUBLIC WORKS

CITIES	Total Death Rate per 100,000 Popu- lation	Census Popu- lation July 1st, 1928	Typhoid Fever		Measles		Scarlet Fever		Whooping Cough		Tuberculosis of Lungs		Tuberculosis (All Forms)	
			Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality
Albany, N. Y.	16.6	25,000	0.4	5.8	255.6	1.3	10.3	0.4	219.6	2.7	N. S.	35.6	22.4	45.8
Albany, N. Y.	16.3	50,000	11.0	1.1	29.3		366.0	2.0	294.7	5.3	N. S.	66.7	163.3	76.7
Albany, N. Y.	15.5	76,000	N. C.	1	N. C.	1.9	N. C.	N. C.	N. C.	5.2	N. C.	75.7	N. C.	94.8
Albany, N. Y.	14.4	80,000	4.7	3.9	147.7	7.7	121.9	0.5	189.9	10.0	148.7	86.3	165.3	99.5
Albany, N. Y.	14.3	72,100	9.4	7.1	610.2	7.2	62.9	0.4	94.4	10.8	260.3	107.0	279.7	126.3
Albany, N. Y.	14.5	259,200	2.0	0.6	10.8.5	8.9	528.0	4.9	239.0	6.5	182.1	72.7	233.6	83.1
Albany, N. Y.	14	187,656	3.3	0.5	150.9	3.8	66.1	1.1	875.0	8.2	N. C.	48.1	94.0	56.3
Albany, N. Y.	14	553,800	14.0	2.3	1,169.8	5.6	449.0	5.6	2,029.0	43.0	140.3	72.7	20.7	16.2
Albany, N. Y.	13.8	128,379	2.4	1.6	660.6	8.8	225.5		181.8	5.6	170.7	85.3	193.0	2.4
Albany, N. Y.	13.5	135,400	14.1	4.4	33.8	14.3	131.7	0.7	107.1	12.6	140.7	33.2	140.3	42.8
Albany, N. Y.	11.4	1,500,000	7	1.9	416.9	1.8	123.0	0.9	315.0	1.8	1,11.4	30.1	116.8	32.7
Albany, N. Y.	10.7	610,400	4.7	0.6	31.8	1.4	58.5	1.6	779.7	5.0	167.1	68.0	186.4	78.8
Albany, N. Y.	10.5	118,100	4.0	0.5	50.7	0.8	137.3	2.4	14.7	2.9	N. S.	71.8	224.4	85.0
Albany, N. Y.	14.0	299,195	5.3	1.7	520.1	2.3	141.0	2.3	82.6	2.0	N. S.	72.2	173.5	86.2
Albany, N. Y.	12.2	217,800	38.1	5.1	94.6		216.7	1.8	219.9	7.8	50.5	45.5	52.8	52.8
Albany, N. Y.	11.3	191,500	9.9	2.6	903.0	4.2	70.0	1.0	198.0	1.6	61.6	50.9	N. S.	11.0
Albany, N. Y.	11.6	1,378,900	5.0	1.0	1,066.9	11.8	318.0	4.7	391.3	6.2	199.1	79.4	217.9	94.9
Albany, N. Y.	16.3	287,000	5.9	2.8	4,338.0	0.3	1,307.0	0.7	270.7	3.8	N. S.	131.7	46.3	144.6
Albany, N. Y.	10.9	1,044,000	12.7	N. C.	16.4	N. C.	314.5	None	170.9	3.6	82.7	54.5	140.9	6.4
Albany, N. Y.	17.3	113,500	N. C.	10.6	N. C.	86.3	N. C.	3.5	N. C.	22.0	N. C.	291.6	N. C.	318.1
Albany, N. Y.	10.1	133,000	5.3	0.8	118.0	0.8	485.7	4.5	157.1	5.4	N. S.	32.3	195.5	37.6
Albany, N. Y.	15.5	124,008	23.3	4.8	1,221.2	14.5	247.8	0.8	98.9	3.2	116.6	85.3	153.7	97.3
Albany, N. Y.	10.8	156,000	8.3	1.3	1,287.8	16.7	360.3	5.8	230.8	7.7	N. S.	32.7	76.3	41.0
Albany, N. Y.	16.6	1,100,000	8.2	7.6	65.1	1.8	197.5	2.3	11.1	2.3	N. S.	42.2	36.9	45.1

ANNUAL MORBIDITY AND MORTALITY RATES FOR THE YEAR 1928 IN CITIES OVER 100,000 POPULATION—Continued

CITIES	Total Death Rate per 100,000 Popu- lation	Census Estimated Popula- tion July 1st, 1928	RATE PER 100,000 POPULATION											
			Typhoid Fever		Measles		Scarlet Fever		Whooping Cough		Tuberc. lungs of Lungs		Tuberculous All Forms	
			Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality
Grand Rapids, Mich.	10.9	164,200	5.5	0.6	152.6	1.2	126.1	0.6	173.2	4.3	83.4	24.4	85.0	28.6
Houston, Texas	11.3	300,000	16.3	6.0	184.3	2.0	14.3	0.3	—	3.0	N S	72.7	175.7	78.7
Indianapolis, Ind.	13.9	385,000	17.1	3.9	595.6	1.0	162.1	1.3	82.3	1.8	N S	76.1	—	16.9
Jersey City, N. J.	12.1	326,206	3.4	0.6	—	9.8	223.0	1.2	23.6	6.4	N S	N S	151.8	73.3
Kansas City, Mo.	14.3	391,000	9.5	2.3	281.8	1.0	242.2	3.8	117.4	6.1	N S	89.3	99.0	99.0
Knoxville, Tenn.	14.1	105,400	50.3	11.4	391.8	5.7	44.6	1.9	12.3	2.8	N S	77.8	205.8	93.9
Los Angeles, Cal.	11.3	1,200,000	5.6	1.7	55.5	0.3	76.4	0.4	169.3	7.6	N S	100.3	295.7	1.4.7
Lowell, Mass.	12.5	112,759	5.3	—	1,225.6	5.1	66.5	0.9	9.8	—	86.0	55.9	110.0	63.9
Lynn, Mass.	11.3	105,000	5.7	—	1,336.2	2.9	296.2	2.9	89.5	2.9	101.0	71.0	128.6	27.6
Milwaukee, Wis.	10.9	560,000	2.9	0.7	148.0	—	356.3	2.5	417.9	5.2	—	52.1	142.9	—
Minneapolis, Minn.	10.8	455,900	5.5	0.2	362.6	1.3	206.6	3.1	124.8	2.9	170.2	29.4	211.0	36.2
Nashville, Tenn.	19.1	139,500	72.3	15.0	398.3	2.9	48.7	0.7	65.9	6.4	310.9	121.8	341.0	153.3
NEWARK, N. J.	11.6	474,000	4.0	1.1	1,335.2	9.9	205.3	1.3	242.0	4.4	181.4	77.2	15.2	9.7
New Bedford, Mass.	11.4	118,737	7.6	1.7	447.2	—	77.5	0.8	153.3	1.7	158.3	82.5	211.4	104.4
New Haven, Conn.	11.7	187,867	9.6	—	1,518.6	7.5	33.6	—	411.5	9.6	229.0	54.3	359.8	61.2
New York, N. Y.	13.0	6,017,702	11.2	1.4	581.8	5.7	175.9	1.1	97.6	5.8	193.0	77.0	194.2	88.4
Oakland, Cal.	11.6	274,097	8.0	1.1	48.5	0.4	195.6	1.8	134.3	1.8	114.2	44.5	—	57.3
Oklahoma City, Okla.	10.7	160,000	28.1	8.8	225.0	0.6	143.1	1.3	—	0.6	—	—	29.4	49.4
Paterson, N. J.	12.7	144,607	6.9	1.4	1,401.7	4.1	102.3	2.1	159.7	3.5	N S.	62.9	112.0	73.3
Philadelphia, Pa.	13.0	2,064,288	6.2	0.8	757.2	7.3	139.0	1.1	191.3	6.4	134.4	73.0	142.3	84.4
Richmond, Va.	14.4	194,400	21.6	3.1	1,164.1	4.6	100.3	0.5	30.3	8.7	—	79.2	215.5	93.1
Rochester, N. Y.	11.7	326,949	6.4	0.9	479.9	1.8	70.3	0.9	144.4	6.7	—	31.2	149.0	36.7
St. Louis, Mo.	14.3	848,100	14.5	2.7	588.0	3.9	126.3	2.4	119.7	3.9	160.7	68.6	N R	80.2
St. Paul, Minn.	12.1	252,200	5.9	1.6	54.3	—	213.3	0.8	450.4	2.8	107.5	59.5	115.4	77.3

ANNUAL MORBIDITY AND MORTALITY RATES FOR THE YEAR 1928 IN CITIES OVER 100,000 POPULATION—Continued

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DEPARTMENT OF PUBLIC WORKS

CITIES	Total Death Rate per 100,000 Popu- lation	Census Estimated Popula- tion July 1st 1928	RATE PER 100,000 POPULATION											
			Typhoid Fever		Measles		Scarlet Fever		Whooping Cough		Tuberculosis of Lungs		Tuberculosis (All Forms)	
			Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality
Salt Lake City, Utah	12.7	158,000	7	2.9	39.9	0.7	80.4	0.7	264.5	3.6	55.1	54.3	N. R.	63.8
San Antonio, Tex.	14.0	250,000	6.8	2.0	204.0	26.8	37.6	0.4	1.6	2.4			100.8	118.4
San Diego, Cal.	19.3	119,700	10.9	1.7	183.8		315.8	0.8	617.5	5.0	200.5	137.0		147.0
San Francisco, Cal.	12.4	665,000	11.4	3.0	104.2	0.2	151.1	0.8	82.4	1.5	157.7	80.9	171.9	95.3
Schenectady, N. Y.	11.2	95,099	15.8	3.2	45.2		237.6		270.2	1.1	102.0	31.5	110.4	35.8
Seattle, Wash.	19.4	583,200	14.1	1.3	83.2	1.8	53.5		100.5	1.0	137.8	41.8	181.4	53.0
Somerville, Mass.	10.3	103,000	6.8	1.9	817.5	3.9	218.4		140.8	2.9	83.5	29.1	18.4	33.0
Springfield, Mass.	11.5	149,800	8.7		721.6	4.7	329.8	1.3	137.5	2.7	75.4	33.4	100.1	45.4
Syracuse, N. Y.	13.6	199,145	7.5	0.5	1,414.5	5.0	214.4	1.5	625.2	6.5	134.6	35.7	195.8	48.2
Tacoma, Wash.	12.3	110,500	16.3		367.4		95.0	0.9	82.4		136.7	33.5		35.3
Toledo, Ohio	12.5	313,200	13.4	4.8	1,748.4	2.2	108.6	1.0	277.8	2.2		73.1	167.9	86.5
Trenton, N. J.	14.2	139,187	21.6	2.2	216.3	2.9	71.8	0.7	53.9	4.3	154.5	94.8	170.3	106.3
Washington, D. C.	13.4	552,000	8.3	2.7	647.8	3.1	233.5	1.3	99.5	4.0	196.9	91.8	206.9	104.5
Waterbury, Conn.	10.7	107,873	3.7	1.9	158.5	1.9	61.2		69.5	4.6	85.3	34.3	6.5	7.4
Wilmington, Del.	11.9	126,400	5.5	5.5	329.1	0.8	51.4	1.6	53.8	1.6		18.8		6.3
Worcester, Mass.	14.0	192,243	1.0	0.5	510.8	1.6	157.1	0.5	261.1	3.6	73.9	66.6	91.6	74.9
Yonkers, N. Y.	9.9	121,315	7.4		807.8	2.5	390.7	2.5	164.0	4.1	145.9	67.6	155.0	74.2

N. R.—Denotes not a reportable disease

N. S.—Denotes figures were not obtainable separately

N. C.—Denotes not complete

ANNUAL MORBIDITY AND MORTALITY RATES FOR THE YEAR 1928 IN CITIES OVER 100,000 POPULATION—Continued

CITIES	Total Death Rate per 100,000 Popu- lation	Census Estimated Popu- lation July 1st, 1928	RATE PER 100,000 POPULATION									
			Diphtheria		Epidemic Meningitis (Cerebro Spinal)		Lobar Pneumonia		Broncho Pneumonia		Influenza	
			Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality
Akron, Ohio	10.6	225,000	125.8	12.4	2.2	1.3	111.6	83.1	N. S.	91.6	444.4	21.3
Albany, N. Y.	13.3	150,000	34.0	4.0	0.7	0.7	155.3	61.3	199.3	66.0	N. R.	12.7
Atlanta, Ga.	15.5	267,000	N. C.	6.7	N. C.	2.6	N. C.	97.4	N. C.	58.8	N. C.	70.8
Baltimore, Md.	14.4	830,370	99.8	7.6	2.0	1.1	124.2	82.3	124.0	90.1	261.8	19.0
Birmingham, Ala.	17.4	222,400	61.2	4.0	3.6	3.1	N. S.	139.8	371.4	43.2	1,377.7	86.3
Boston, Mass.	14.5	799,200	123.7	7.9	3.8	2.1	206.0	72.1	N. R.	97.1	42.4	7.8
Bridgeport, Conn.	9.4	182,936	136.1	13.1	4.4	3.8	137.2	48.7	117.5	48.7	34.4	16.9
Buffalo, N. Y.	13.4	555,800	129.2	11.3	2.5	1.4	146.6	75.4	118.7	67.7	79.5	6.8
Cambridge, Mass.	11.8	125,379	195.4	7.2	0.8		190.6	56.6	N. R.	82.9	43.1	4.0
Camden, N. J.	12.5	135,490	187.6	13.3			223.0	82.0	N. R.	67.9	25.8	22.2
Canton, Ohio	11.3	113,000	26.5	1.8			N. R.	83.2	N. R.	81.4	N. R.	50.4
Cleveland, Ohio	10.2	1,010,300	157.4	10.3	10.0	4.0	240.5	54.5	N. R.	45.8	462.2	20.7
Chicago, Ill.	12.5	3,157,400	154.6	14.5	11.5	5.7	N. S.	N. S.	368.2	137.7	140.3	19.5
Columbus, Ohio	14.0	299,195	43.4	2.0	2.7	2.3	89.6	34.8	N. S.	47.8	416.8	14.4
Dallas, Texas	12.2	217,800	205.2	11.9	0.9	1.4	81.7	65.2	N. S.	30.3	60.1	47.8
Dayton, Ohio	11.3	191,500	46.5	3.1	3.7	2.6	N. S.	6.3	N. S.	10.4	N. S.	27.2
Detroit, Mich.	11.6	1,378,900	142.0	16.2	11.1	7.3	214.4	79.0	203.6	56.4	237.7	23.2
Denver, Colo.	16.3	287,000	102.8	4.5	35.9	23.3	N. S.	98.6	N. S.	77.0	1,452.6	109.1
Duluth, Minn.	10.9	110,000	39.1	1.8	15.5	4.5	N. R.	42.7	N. R.	30.9	N. R.	49.1
El Paso, Texas	17.3	113,500	N. C.	9.7	N. C.	10.6	N. C.	46.7	N. C.	105.7	N. C.	73.1
Erie, Pa.	10.1	133,000	90.2	8.3	0.8	0.8	98.5	40.6	51.1	37.6	690.2	21.1
Fall River, Mass.	15.5	124,308	93.3	3.2	2.4	2.4	139.2	53.1	N. R.	41.0	40.2	16.1
Flint, Mich.	10.8	156,000	55.1	3.2	1.9	5.8	N. C.	69.2	N. R.	65.4	627.6	19.2
Fort Worth, Tex.	10.9	170,600	151.2	5.0	1.2		N. S.	70.9	12.3	39.0	721.6	25.8

ANNUAL MORBIDITY AND MORTALITY RATES FOR THE YEAR 1928 IN CITIES OVER 100,000 POPULATION—Continued

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DEPARTMENT OF PUBLIC WORKS

CITIES	Total Death Rate per 100,000 Popu- lation	Census Estimated Popu- lation July 1st, 1928	RATE PER 100,000 POPULATION									
			Diphtheria		Epidemic Meningitis		Lobar Pneumonia		Broncho- pneumonia		Scarlet Fever	
			Morbidity	Mortality	Morbidity	Mortality	Morbidity	Mortality	Morbidity	Mortality	Morbidity	Mortality
Grand Rapids, Mich.	10.9	161,000	29.1	—	1.8	0.6	N. S.	1.8	8.2	5.6	18	55.0
Houston, Texas	11.3	300,000	129.3	4.7	2.3	0.3	—	78.3	—	47.3	94.7	14.7
Indianapolis, Ind.	13.5	585,000	65.5	6.1	—	0.5	N. R.	—	118.6	—	—	45
Jackson, Miss.	11.5	—	63	18.7	N. S.	1.5	418.0	6.2	N. S.	1.5	N. S.	15.0
Kansas City, Mo.	11.5	29,000	8.6	4.6	26.5	16.6	—	78.5	46.4	5	35	4.3
Knoxville, Tenn.	14.1	105,400	31.3	4.7	—	—	N. C.	83.5	N. S.	100.6	709.9	64.5
Los Angeles, Cal.	11.3	1,000,000	43.7	6.5	5.1	2.4	9.2	34.1	15	1	38.1	33.2
Lowell, Mass.	12.5	112,759	97.6	11.5	2.7	—	62.1	34.6	—	85.1	19.5	3.5
Lynn, Mass.	11.3	105,000	163.8	66.7	1.9	1.0	122.9	51.4	N. R.	60.0	22.9	5.7
Milwaukee, Wis.	10.9	560,000	68.0	6.3	17.0	9.1	224.8	52.3	N. S.	67.0	1,050.7	25.2
Minneapolis, Minn.	10.8	455,900	134.9	5.3	8.3	2.4	N. R.	62.7	N. R.	39.7	1,383.6	35.8
Niagara Falls, N. Y.	12.1	149,000	96.6	6.4	7.9	5.7	42.3	—	68.6	86.5	—	27.4
NEWARK, N. J.	11.6	474,000	287.1	20.0	7.6	3.0	357.8	85.2	243.7	48.1	163.5	7.6
New Rochelle, Mass.	11.4	118,737	214.8	9.3	1.7	1.7	70.7	20.2	N. R.	85.1	10.9	2.5
New Haven, Conn.	11.7	186,804	66.1	3	3.7	0.5	N. C.	6.1	61.2	5.7	68.6	14.8
New York, N. Y.	15.3	6,011,000	179.1	10.7	18.5	9.1	N. S.	8	351.3	1.8	17.8	11.9
Okla. City, Okla.	11.6	291,000	125.5	10.2	4.0	1.5	N. C.	85.4	N. R.	N. R.	42.0	38.1
Oklahoma City, Okla.	10.1	300,000	142.5	14.8	2.5	2.5	530.6	150.1	N. S.	N. S.	74.4	60.0
Paterson, N. J.	12.7	149,697	40.1	9.0	4.8	2.8	N.	59.6	4.8	1.0	2.6	10.1
Philadelphia, Pa.	13.0	664,568	95.1	11	3.1	1.6	—	2.1	49.4	6	63.5	24.4
Richmond, Va.	14.1	24,400	51.6	6	2.1	1.5	N. C.	6.9	8.7	55.6	1,088.6	25.1
Rochester, N. Y.	11.5	260,000	80	5	1	0.6	N. S.	N. S.	155.0	2.8	2.4	7.1
St. Louis, Mo.	11.5	818,100	156.6	5.1	18.4	6.0	N. C.	25.6	—	5.1	—	1.2
St. Paul, Minn.	12.1	570,000	1.4	2.4	5.6	0	—	54.5	—	8.6	—	8.2

ANNUAL MORBIDITY AND MORTALITY RATES FOR THE YEAR 1928 IN CITIES OVER 100,000 POPULATION—Continued

CITIES	Total Death Rate per 100,000 Popu- lation	Census Estimated Popu- lation July 1st, 1928	RATE PER 100,000 POPULATION									
			Dysentery		Epidemic Meningitis (Enteric Spinal)		Lobar Pneumonia		Bronchopneumonia		Influenza	
			Mor- tality	Mor- tality	Mor- tality	Mor- tality	Mor- tality	Mor- tality	Mor- tality	Mor- tality	Mor- tality	Mor- tality
Salt Lake City, Utah	12.7	148,000	67.3	5.1	11.9	14.5	N. R.	53.6	N. R.	36.1	N. R.	81.2
San Antonio, Tex.	14.0	250,000	64.8	10.8	1.6	6.8	N. C.	145.2		13.6		72.6
San Diego, Cal.	19.3	119,000	76.0	5.8	12.5	5.8	135.3	101.9	21.2	45.9	1,568.1	52.6
San Francisco, Cal.	12.4	665,000	62.4	3.0	6.0	3.3	53.7	37.1	N. R.	48.0	654.1	21.8
Schenectady, N. Y.	11.2	95,999	52.6	3.2	3.2		88.3	44.1	69.1	46.8		22.1
Seattle, Wash.	10.4	181,200	22.4	1.0	5.7	2.3		36.0		25.6		30.5
Somerville, Mass.	10.3	103,000	138.9	5.8	7.8	1.0	150.5	5.3	N. R.	99.0	1.5	
Springfield, Mass.	11.5	149,800	210.3	19.4	4.0	2.0	112.8	44.7	N. R.	40.1	20.0	17.4
Syracuse, N. Y.	13.6	199,145	39.2	2.0	1.0	0.5	333.9	80.8	369.2	53.7	2.0	12.6
Tacoma, Wash.	12.3	110,500	26.2		6.3	4.5		34.4		38.0	465.2	19.0
Toledo, Ohio	12.5	313,200	39.0	2.9	9.6	5.4		50.8	105.0	50.1	84.6	63.5
Trenton, N. J.	14.2	139,187	84.8	2.9	2.2	2.2	N. C.	70.4	28.0	15.3	111.1	14.4
Washington, D. C.	13.1	552,000	229.7	8.2	1.4	0.9	157.1	64.9	85.5	50.7	218.8	15.9
Waterbury, Conn.	10.7	107,873	46.4	2.8	1.9	1.9	97.3	53.8	62.1	47.3	40.8	24.1
Wilmington, Del.	11.9	126,400	58.5	6.3	3.2	3.2	N. C.	120.3			4.0	17.4
Worcester, Mass.	14.0	192,242	127.4	6.8	2.6	1.6	155.5	59.8	N. R.	N. R.	16.6	9.4
Yonkers, N. Y.	9.9	121,315	125.3	9.1	4.9	1.6	125.3	87.4	101.4	65.1		3.3

N. R.—Denotes not a reportable disease.

N. S.—Denotes figures were not obtainable separately.

N. C.—Denotes not complete.

ANNUAL REPORT
OF THE
Division of Sanitation

ANNUAL REPORT
OF THE
Division of Sanitation

*Charles V. Craster, M. D., D. P. H.,
Health Officer.*

Dear Sir:

I herewith present the annual report of the Sanitary Division for the year ending December 31st, 1928

Respectfully,

WILLIAM H. YOUNG,
Assistant Health Officer.

SANITARY CONDITION OF THE CITY

Garbage collections as reported by the Sanitary Inspectors were very good throughout the city during the entire year. During the annual Spring Clean-Up it was found unnecessary to set aside any special collection days, the winter accumulation being collected on the regular weekly collection days.

The Value of Sanitary Complaints

Only by a continuous house-to-house inspection could a Department of Health be sure of covering all instances of violations of the Sanitary Code. This, however, would necessitate the employment of a very large staff of Inspectors, so that there are many occasions where nuisances may exist unknown to the authorities which are only brought to light

by means of complaints from householders or others, by mail, telephone or by personal application.

Here it is as well to state that all complaints, signed or unsigned, anonymous or otherwise, receive the same investigation by the Division of Sanitation.

Although the number of complaints from citizens are small, as compared with the number of original inspections made, they constitute an important item in the office records, acting as a kind of a public health barometer from which valuable information is obtained.

The attitude is sometimes taken by householders and others when unhealthy or insanitary conditions come to their attention that it is none of their business anyway, and that they would rather leave things alone than cause any disturbance and have to appear in court as a witness, if an appeal were made to the Health Department. This is a mistaken stand and is only "shocking" one's duty to the community when very frequently works hardships to innocent persons. No obligation to appear in court or to figure personally in a complaint trial is ever put upon the complainant. Sanitary violations are handled completely by the Inspector detailed to the case.

Any public indifference to insanitary conditions in the future will counteract the work of the individual Inspector. Unless there are better laws the harder the better.

Each citizen can demand the protection which the Sanitary Code gives the community. If it is a live code it will be enforced. If it is found to be dead in some parts it will be altered to meet new conditions.

The taxpayer is paying the bill and it is up to him to use the facilities the city affords for the protection of his home and for the correction of unhealthy conditions anywhere within the city where his business or pleasure may call him.

Nothing but good can come if the people as a body report insanitary conditions as they see them in the houses, yards or areas, no matter whether the condition is brought about by the negligence of the landlord, agents or tenant.

During the past year 5,752 complaints were made to the Department of Health.

It is seen that the conditions complained of differ widely. In most cases there is sufficient law in the Code to bring about remedial measures. There is, however, a minority to which the law does not accurately apply. In these cases other means must be taken, argument, a certain amount of 'give and take' and usually an appeal to the humanitarian side of the offender brings about a solution of the difficulty.

Quite a number of complaints are upon insanitary toilet conditions. Inspection of many of these show very trifling nuisances existing. In some cases there is a dispute with regard to who shall keep such places clean among tenants of tenement buildings.

More serious conditions are found where water supply is deficient or shut off, or where landlords or agents are negligent in doing necessary repairs. In some instances it is a case of "passing the buck," everyone disclaiming responsibility for the conditions found. The main responsibility for all such conditions must rest primarily with the owner or lessee. If, however, insanitary conditions are brought about by the negligence of the tenant the latter is equally responsible with the owner or lessee for the abatement of the conditions found.

Where requests are made for a call to be made for complaints it is usually found to be some situation requiring special explanation by the complainant. This in the majority of instances is a case of defective plumbing or house drainage.

All such defects must naturally be corrected by the landlord, unless a special clause in the lease puts the responsibility for repairs upon the tenant. Tenants should be careful about signing leases containing such a proviso, although a failure of the tenant to repair such defects would not release the landlord of the responsibility to this Department.

Sufficient Water Supply

Complaints made concerning the water supply are mainly instances where supply is temporarily shut off on account of failure to pay water rent. Occasionally a landlord will shut off the water in an effort to eject an undesirable tenant. Needless to say that such a procedure is not only illegal but a direct menace to health. Any house in which such a condition exists becomes at once an insanitary nuisance requiring immediate abatement.

Landlords cannot shut off the water supply for non-payment of rent or for any other reasons, except to repair defective plumbing. The law provides a proper machinery for the ejectment of tenants.

Where water supply is shut off by the city for non-payment of water rent immediate payment is required by the party responsible. Water must be supplied to inhabited houses or the houses must be vacated.

Where water is shut off in cases where sickness exists, very special consideration is usually required. The Department of Public Affairs always co-operates where it is a question of health, providing an immediate temporary supply during the period of emergency.

The keeping of animals in dwelling houses is a frequent cause of complaint. Such complaints are usually from indignant neighbors who have no use for domestic pets.

The modern apartment house is no place to keep animals, particularly where large dogs are kept and where there is no outside kennel accommodations. It is an invariable rule of the Department to require kennels to be provided for large animals.

There is no excuse for a multiplicity of pets in small dwellings or apartment houses; one dog or one cat should satisfy the cravings of the average person for animal society unless special quarters are provided to satisfy unusual tastes.

"What the eye does not see the heart does not grieve" applies very literally to the condition found in some cellars. Complaints show generally an accumulation of ashes in these places. Although it may be argued that ashes by themselves do not constitute a nuisance or a hazard to health, there is no doubt that in many cases undesirable conditions are brought about by the accumulation of decomposing material, which in turn attracts vermin and flies.

It is on this account that accumulation of ashes and other waste materials are required to be removed within a reasonable time from all cellars of dwelling houses.

Back yards are a common source of complaint, the condition found being frequently the result of the indiscriminate use of such places for depositing garbage or other household refuse. In some instances tenants are too lazy to use the proper garbage receptacles provided.

With the increase in the number of apartment houses in the city numerous complaints are being received upon the practice of shaking and beating carpets and rugs from windows.

This procedure cannot be too strongly condemned. Carpets and rugs contain dirt brought into rooms from the streets and when shaken in the proximity of open windows

may disseminate harmful dust. This is a violation of the Sanitary Code for which penalties may be imposed.

When requests are made that premises be inspected the usual condition found is one in which the walls, ceilings and floors are defective or in need of repair and repainting.

No house or room should be allowed by property owners to be so adapted as to be difficult to clean or to favor harboring of dirt or vermin.

At times roofs of dwellings are not weatherproof, storm leaders and gutters may not be provided or are defective. Such defects produce conditions prejudicial to health, and the landlord is required to repair all defective walls, ceilings and floors and to make roofs water-tight and to provide proper means for carrying storm water from the premises.

The Department welcomes complaints of any kind affecting living conditions in the home. Wherever possible a solution is sought in accordance with the Sanitary Code and for the protection of the individual citizen and the family.

Keeping of Chickens by Butchers

Many complaints have been received by the Department of Health concerning the practice of keeping live and undressed chickens in butcher stores. Such action is a violation of the Sanitary Code, which is specifically forbidden in "An Ordinance to Regulate the Slaughter of Poultry in Private and Public Slaughter Houses in the City of Newark." Section 1092 of the Sanitary Code also forbids the packing of any chickens within the limits of any market, public or private within the city.

The keeping, slaughtering and plucking of chickens for sale within the city is allowed only in slaughter houses, either public or private. These slaughter houses must be licensed

by this Department in accordance with the law. Any butcher found handling live chickens or dressed poultry within the City of Newark, except in duly licensed premises, is liable to legal action. This Department has authority not only to cause offending persons to be fined, but also to seize or remove any chickens held illegally in a summary manner as a nuisance hazardous to health.

Legal Proceedings

There were two hundred and eighteen (218) cases turned into the Law Department for legal action. Judgment was obtained on thirty-one (31) cases. One hundred and thirty-three (133) cases were discontinued on payment of costs, owing to violation complained of being abated at the times cases were presented in court. Thirty-nine cases were discontinued without payment of costs, work being done. Three cases were pending at the end of the year. No service obtainable on twenty cases.

INSPECTIONS MADE BY THE SANITARY INSPECTORS DURING THE YEAR 1928

Total number of inspections made	108,038
Inspections from complaint cards	5,752
Original inspections made	102,152
Total number of reinspections made	31,953
Total number of nuisances found	17,593
Number of verbal notices served	7,535
Number of written notices served	5,589
Number of special notices served	3
Total number of notices served	13,127
Abatements from verbal notices	7,060
Abatements from written notices	7,622
Abatements from special notices	14
Total number of abatements	14,696
Alleyways inspected	15,878
Alleyways inspected	1,883
Areaways inspected	13,286

Arcaways insanitary	1,189
Cellars inspected	20,205
Cellars insanitary	2,476
Yards inspected	25,059
Yards insanitary	2,981
Cattle and chicken slaughter house inspections.....	2,574
Cattle and chicken slaughter houses insanitary.....	134
Cisterns and wells inspected.....	0
Cisterns and wells insanitary.....	0
Cisterns and wells closed.....	0
Factories inspected	169
Factories insanitary	31
Schools inspected	1,368
Schools insanitary	23
Stores inspected	5,856
Stores insanitary	488
Tenement houses inspected	8,056
Tenement houses insanitary	1,124
Houses unfit for habitation	10
Living rooms insanitary	1,273
Dark and windowless rooms	49
Theatres inspected	714
Theatres insanitary	8
Buildings with no city water supply.....	247
Buildings unprovided with water closets or privy vaults	43
Buildings with roofs, storm gutters or leaders defective	1,102
Plumbing in or on premises defective	1,708
Sewer connections ordered	10
Pits under water closets defective	87
Water closets not supplied with water	740
Privy vaults and cesspools inspected	44
Privy vaults and cesspools insanitary	4
Privy vaults and houses ordered reconstructed	0
Privy vaults ordered cleaned and filled	2
Garbage and refuse accumulation	1,992
Stables inspected	1,227
Stables insanitary	224
Manure accumulation	213
Manure bins and pits uncovered	177
Streets insanitary	7
General inspection cards filed in office	544
Visits to agents and owners of real estate	2,528

DEPARTMENT OF HEALTH

105

Warning cards handed to violators of spitting ordinance	204
Arrests made for violating spitting ordinance	0
Days detailed to enforce spitting ordinance	0
Number of spitting signs posted	171
Number of hours in court	540
Number of inspections for chicken and ice permits	1,477
Notices served for inspectors assigned to other districts	1 524
Dead animals reported	174
Complaints referred to other City Departments	147
Scavenger dumping grounds inspected	196
Number of quick summons served	96
Home-work applications investigated	86
Miscellaneous inspections made	4,182

LICENSES ISSUED BY THE SANITARY DIVISION FOR THE YEAR 1928

Animal permits	15
Bird store licenses	9
Chicken licenses	424
Commission house permits	39
Ice licenses	345
Refuse permits	19
Scavenger licenses	0
Poultry slaughter house	63
Poultry market stall holders' permits	31

ANNUAL REPORT OF CHIEF SANITARY INSPECTOR AND ACTING CHIEF OF INDUSTRIAL HYGIENE DIVISION

*Dr. Charles V. Craster,
Health Officer.*

Dear Doctor:

I herewith submit my report for the year ending December 31st, 1928.

Respectfully,

ANDREW J. BRADY,
*Chief Sanitary Inspector,
Acting Chief of Industrial Hygiene Div.*

I am pleased to report both from personal inspection and from reports submitted to me by the inspection personnel of the Industrial Hygiene Division that the general sanitary conditions in the city proper and the watershed reserves are in a good state.

The official records of the Industrial Hygiene Division testify that the sanitary condition of plants, factories, mills and public and private institutions are on the whole satisfactory; where violations exist these have been reported and called to your attention and your instructions for their abatement and elimination complied with.

Where infringements of the State laws or those of other municipalities have come to our attention they have been promptly referred to you, for reference to the proper authorities.

Inspection of Industrial Establishments

A thorough inspection service of all types of industrial establishments has been made by the Division of Factories under the direction of the Chief Inspector of Factories, who, in connection with the Division of Public Health, has been able to detect and wash up many defective conditions in such establishments and workshops. The service has been extended to the retail shops, especially in the case of the food stores, and in the part of the establishment where the workers are most likely to be exposed in health protection in these plants may be confidently expected.

The health propaganda by this Department has borne fruit in the adoption by many large employers of a definite plan for periodic health examinations of their employees and also the active inauguration of remedial procedures by their medical staffs.

Practically all smaller establishments provide first aid equipment, emergency rooms for sickness or accident, and are very receptive of any health measures that will conserve the energy and health of the workers. This attitude is, of course, not entirely altruistic, for the returns in efficiency, contentment and goodwill have been demonstrated to fully warrant the cost of investment in health measures, which in large part are educational and hygienic.

Garbage Collections

Garbage collections have been as regular and efficiently done as in past years.

Annual Clean-Up

It is still to be a regular institution in every first class city as it disposes of much material which, if allowed to accumulate, might prove very poisonous to health and, perhaps, to life. The Spring of the year is, of course, best adapted to this work and has been invariably successful.

Lodging House Inspection

The six lodging houses in Newark have been regularly inspected and every effort is made to keep them in the condition prescribed for them by law.

Inspection of Candy Factories

Co-operative inspection of candy factories in conjunction with the retail drug inspection forces of the Department has revealed many violations during the past year, but in every case they were promptly reported to you and the violation removed.

Labor Camps

At the present time two labor camps are maintained by two railroad companies for housing their construction forces. The personnel of these forces are to a large extent of a shifting migratory type of laborers, who frequently change from one camp to another, and whose whereabouts after they leave one place for another is very difficult to determine. It is for this reason that they constitute a distinct menace should they be suffering from a contagious disease and surveillance cannot be too strict. Inspectors have therefore been instructed to bend all their energies in seeing to it that these camps are maintained in the best possible sanitary condition.

Bath Houses, Swimming Pools, Wading Pools, Mikvehs

There are 14 swimming pools in the city, 2 outdoor swimming pools, 4 wading pools for children and 3 mikvehs.

Water samples are taken at least twice a month from all the above for bacterial analysis and at times samples are also taken for chemical analysis. It is gratifying to report that these places, because of regular inspection, are kept in a sanitary condition.

Ice Samples

Natural and artificial ice samples are collected from retail and wholesale dealers during the Summer months and delivered to the laboratory for bacteriological and chemical analysis.

It might be well to remark here that there is at present in the hands of the Law Department an ordinance regulating the type of construction, maintenance, and licensing of swimming pools giving the Health Department complete control over their operation as far as sanitation is concerned.

During the year it was necessary for the safeguarding of the city water supply and the elimination of a possible source of contamination to call the attention of the State Department of Health, after a careful inspection by the Health Officer, to a sewerage hazard, the prompt action by your inspectors averted a potentially dangerous condition.

Out-of-Town Summer Camps

At the request of the Young Men's Christian Association Camp Kamesha, located near Branchville was inspected by this Department together with a survey of the surroundings of the camp, water samples taken and detailed reports of the findings submitted which were not altogether favorable.

Fairmount Mausoleum

During the year the Fairmount Mausoleum was completed and opened to the public. It is located at the Fairmount Cemetery in a sequestered spot facing Central Avenue.

The building consists of three stories and basement. Communication with the several floors is by stairways and elevators.

The mausoleum is constructed of the following materials: The structure is reinforced concrete faced on the outside

with Barre granite and on the inside with Georgia marble; all doors and gates are of standard bronze, size of building is 96 feet by 260 feet.

There are 3,333 crypts and 550 niches. All caskets or outside cases are lined with zinc before being placed in crypts. There also are several private rooms holding from 2 to 10 bodies. The capacity of the mausoleum is 3,900 bodies.

The building is equipped with sewer connections, water supply, water closets for each sex, also wash basins and slop sink for waste water. The mausoleum is lighted by electricity, all floors have proper ventilation, with forced ventilation for the basement. The heating plant is separate from the main building where an oil burner is used to supply heat.

The site for the above building was approved by this Department and on completion the mausoleum was also approved by the Health Department and State Department of Health. It is considered the most modern building of its kind in the State.

Report of Samples of Water Taken from City Water Supply at Watersheds and Other Sources for the Year 1928

Number of visits to Watersheds.	25
Number of visits to Cedar Grove Reservoir	24
Number of visits to Belleville Reservoir.	24
Number of days at Watersheds	24

**Samples of City Drinking Water Supply Taken at the
Following Places for Bacteriological and
Chemical Analysis**

	Chemical	Bacterial
Oak Ridge Stream	12	24
Clinton Stream	12	24
Kanouse Stream	12	24
Echo Lake Stream	12	24
Macopin Intake inside of gatehouse	12	23
Cedar Grove Reservoir outside inlet gatehouse	12	24
Cedar Grove Reservoir outside outlet gatehouse	12	24
Belleville Reservoir outside outlet gatehouse	12	24
Belleville Reservoir inside inlet gatehouse		24
Health Department Building, Plane and William Sts.		24
Prudential Insurance Co. Building before filtering ..		10
Prudential Insurance Co. Building after filtering ..		10
Wells and other sources out of city		6
Wells in city used for drinking purposes	3	8
<hr/>		
Total number drinking water samples	99	267

**Samples of Water Taken from Indoor Swimming Pools
and Mikvehs**

Hill Bath, 188 Broome Street	2
Charlton Bath, 36 Charlton Street	42
Howard Bath, 141 Howard Street	13
Robert Treat Bath, 122 Howard Street	20
Mercer Bath, 32 Mercer Street	21
Y. W. C. A. Bath, 53 Washington Street	24
Huber Bath, 10 West Park Street	14
Y. M. C. A. Bath, 107 Halsey Street	23
Newark A. C., 24 Park Place	20
City Bath, 24 Paterson Street	22
City Bath, Morris Avenue	23
Elks' Bath, 1048 Broad Street	12
Y. M. and Y. W. H. A., 656 High Street	20
Temple B'nai Abraham, 826 South Tenth Street	14

Samples Taken from Open-Air Swimming and Wading Pools

Dreamland Park	16
Weequahic Park Wading Pool	1
Passaic River Water	8

Ice Samples Taken

Natural ice samples	2
Artificial ice samples taken	2
Total number samples to Bacteriologist	582
Total number samples to Chemist	99

DETAILED REPORT FOR THE YEAR 1928

Total number of inspections	4,733
Inspections from complaints	186
Original inspections	4,516
Special inspections	186
Total number of violations found	1,058
Number of written notices served	325
Number of verbal notices served	676
Number of special notices served	2
Total number of notices served	1,003
Abatements from written notices	335
Abatements from verbal notices	611
Abatements from special notices	2
Total number of abatements	948
Factory work shops and mills inspected	2,674
Inspections made with other inspectors	66
Inspections made with Health Officer	6
Inspections of cattle and hog slaughter houses	14
Inspections of public comfort stations	144
Inspections of railroad stations and toilet rooms	97
Inspections of hospitals	29
Inspections of other institutions	120
Inspections of public pool and billiard parlors	172
Inspections of barber shops	289
Inspections of hairdressing and manicuring parlors	79
Inspections of artificial ice plants	15
Inspections of cemeteries	3
Inspections of mausoleums	1
Inspections of lodging houses	77
Inspections of public bath houses	232
Inspections of open air swimming pools	8
Inspections of open air wading pools	15
Inspections of motion picture theatres	212
Inspections of other theatres	106
Inspections of dance halls	233

Inspections of open air amusement parks.	12
Inspections of playgrounds	91
Inspections made at night	38
Inspections made on Sunday	0
Total number of reinspections	2,332
Number of factory cards filed in office	136

INVESTIGATIONS

Total number of investigations made	258
Number lead poisoning cases	34
Number mercury poisoning cases	1
Number illuminating gas poisoning cases	25
Number other industrial disease cases	3
Total number of cases	62
Official calls made on industrial disease patients	45
Number special investigations made for Health Officer	82
Number applications for insulin	34
Number open air camps, carnivals, roller rinks, or amusements	5
Number hospital and other institutions	18
Number noise complaints	40
Number location for proposed factory or other building sites inspected	10
Number location for cemetery sites investigated	4
Number out of city summer camps investigated	1
Number out of city investigations	12
Number written reports made to the Health Officer	108
Number verbal reports made to the Health Officer	50
Number days at special work	71
Number official calls made on owners or agents	333
Number visits on absent employees	28
Number persons notified to appear before the Health Officer	54
Number cases turned in for suit	7
Number hours in court	10 1/2
Number violations found and referred to City and State Departments	70
Number plans approved for poultry slaughter houses; revival, 1; public, 3, private, 3; total	7
Number licensed poultry slaughter houses in the city; public, 28; private, 35; total	63

REPORT OF DETAILED INSPECTION OF RABIES

Dr. Charles V. Craster, Health Officer.

Dear Doctor:

I herewith present my annual report on Rabies Investigations for the year ending December 31, 1928

Respectfully,

CHARLES F. CONRAD,
Health Inspector.

The past year has again been marked by an exceptionally large number of persons bitten by dogs a total of 1,365 as compared with 1,355 in 1927. It is very gratifying to note that of the thirty (30) suspected animals' brain tissues examined at the Bacteriological Laboratory (city cases), only seven (7) proved to be positive, as compared with twenty one (21) positive cases of the sixty (60) examined in 1927. Eight persons were given the Pasteur treatment as compared with twenty nine (29) for the preceding year.

The brain tissues of twenty five (25) suspected animals were examined from eleven of our surrounding cities and towns of which thirteen proved positive, and twelve negative.

Again this year there was only a slight seasonal variation, as positive cases were found in eight of the twelve months of the year. March, June, September and October being the only exceptions.

Most of the city rabies cases were found in the cold months, January, February, October and November. The

warmer months, May, June, July, August and September had none. On the other hand, most of the out of city rabies cases were found in the warmer months, April, May, July and August, with none in November or December. This shows that there is no seasonal prevalence in rabies, and that it is an all year round disease.

Rabid dogs were found in five of our sixteen wards. First Ward, 2. Ninth Ward, 2. Fourth Ward, 1. Sixth Ward, 1. Sixteenth Ward, 1. The largest number of dog bites were in the Fourteenth Ward, 154. This ward also had the greatest number last year, 144. The lowest number of persons bitten was in the Tenth Ward, 42. The month of July had the largest number of persons bitten, 198, and the lowest month was February with 72.

Eight persons who were bitten or exposed to infection from local animals that were examined and found rabid were given the Pasteur treatment, as compared with twenty-nine for the year of 1927. This treatment is given free of charge to persons residing in this city.

On July 17, 1928, a case of human rabies was reported to us by a local physician. On investigating I found that the victim, a boy 8 years old who lived in a nearby town, was brought to a private hospital in our city July 16, 1928, where the case was diagnosed by two reputable local physicians. The victim died early the following day, July 17, 1928, and his body was removed to his home with permission of the Chief Medical Examiner, as the victim came from another county.

Upon inquiring from the Town Health Officer I learned that the victim was bitten by a neighbor's dog seven weeks prior to the bite, which, was on the nose and arm, had not been attended to. About same night the dog renewed the bite

with which he was tied, ran away, and has not been heard of since. This case was not reported to the Town Health Officer until July 13, 1928, when the disease had already developed in the victim.

It is important to report all dog bite cases, no matter how slight they may appear.

PERSONS BITTEN BY ANIMALS (IN THIS CITY) MONTHLY

	1928	1927		1928	1927
January	82	59	July	198	178
February	72	79	August	162	125
March	80	118	September	102	116
April	118	127	October	109	87
May	150	157	November	74	71
June	138	167	December	80	71
Total				1,365	1,355

The following is a list of positive and negative (out of city) suspected animal brain tissues examined for the year

	Pos	Neg		Pos	Neg.
Maplewood, N. J.	3	2	Irvington, N. J.	1	0
South Orange, N. J.	3	0	Kearny, N. J.	0	1
Union Township, N. J.	2	1	Montclair, N. J.	0	1
West Orange, N. J.	2	0	Short Hills, N. J.	0	1
Belleville, N. J.	1	4	Summit, N. J.	0	1
Bernardsville, N. J.	1	1			—
				13	12

LABORATORY EXAMINATIONS

The following table is a list of positive and negative (city and out of city) cases examined monthly for the year 1928, as compared with the year 1927:

CITY CASES				OUT OF CITY CASES				
Positive		Negative			Positive		Negative	
1928	1927	1928	1927		1928	1927	1928	1927
2	1	1	5	January	1	0	3	1
1	2	2	6	February	1	1	1	0
0	2	0	3	March	0	2	1	1
1	3	5	2	April	4	4	0	1
0	4	2	5	May	4	4	0	2
0	3	2	4	June	0	1	2	3
0	3	1	3	July	1	1	1	2
0	1	3	6	August	1	1	2	0
0	1	2	3	September	0	0	0	1
2	1	0	1	October	1	0	2	2
0	0	1	0	November	0	0	0	0
1	0	2	1	December	0	0	0	0
7	21	21	39	Totals	13	14	12	13

	Pos	Neg	Total
1928 (city) animal brain tissue examined	7	21	28
1928 (out of city) animal brain tissue examined	13	12	25
	20	33	53

The brain tissue of two suspected cats and one rat were examined, one cat proved positive, and the other cat and the rat were found negative.

DOG BITES AND RABIES REPORTED BY WARDS

The following table shows the number of dog bites, and rabid dogs in Newark listed according to Wards for the year 1928:

Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Bites	70	59	107	53	59	103	60	85	104	42	100	49	121	154	82	117	1365
Rabid Dogs	2	0	0	1	0	1	0	0	2	0	0	0	0	0	0	1	7

The following is a report of investigations in rabies work for the year 1928 as compared with the year 1927:

	1928	1927
Persons bitten by dogs	1,343	1,330
Persons bitten by cats	18	22
Persons bitten by other animals	4	3
Total number of persons bitten	1,365	1,355
Original inspections	2,113	2,252
Reinspections (dogs under observation)	2,340	2,098
Final inspections (dogs released)	2,184	1,775
Total number of inspections	6,637	6,125
Number of animals bitten	107	166
Animals sent to Humane Society (observation)	93	114
Animals sent to Humane Society (destroyed)	53	87
Animals sent to Humane Society (alive and destroyed)	146	201
Cases reported by Police Department	344	385
Persons given Pasteur treatment	8	29
Brain tissue of suspected animals examined	53	87

The following table shows the number of persons bitten, suspected animal brain tissues examined, positive and negative cases and persons given Pasteur treatment in Newark since 1910. (This does not include out of city cases that were examined at our laboratory):

	Persons Bitten	Animals Examined	Posi- tive Cases	Negative Cases	Persons Given Anti Rabie Treatment
1910	218	33	21	12	40
1911	350	26	11	15	26
1912	536	43	18	25	62
1913	612	41	15	26	41
1914	509	28	5	23	13
1915	560	38	3	35	3
1916	432	14	0	14	4
1917	500	34	17	17	31
1918	565	19	8	11	43
1919	493	17	3	14	4
1920	465	13	2	11	4
1921	539	16	0	16	0
1922	654	22	6	16	13
1923	955	79	23	56	92
1924	1,169	73	23	50	58
1925	1,120	56	22	34	42
1926	1,159	67	23	44	47
1927	1,355	60	21	39	29
1928	1,365	28	7	21	8
Totals.....	13,568	707	228	479	560

Since this department has taken up the work of rabies investigation, which started in the year 1910, a total of 13,568 persons were bitten by dogs in this city. Of the 707 suspected animal brain tissues examined, 228 proved positive, and 479 were found negative. Pasteur treatment was given to 560 persons. During this year the dog bites became so numerous that an extra inspector was found necessary in order to properly investigate and supervise all the cases.

I again wish to thank the Associated Humane Societies and its Superintendent for their splendid cooperation, and I have at all times found their modern shelter in a most satisfactory and sanitary condition.

REPORT OF THE CHIEF PLUMBING INSPECTOR FOR 1928

To Dr. Charles V. Craster, Health Officer.

Dear Doctor:

Herewith is submitted the report of the Plumbing Division for the year ending December 31, 1928.

Our report shows a reduction in the number of plans filed during the year and the greater reduction has been in the new systems, which shows that new building is very slow.

Our city is almost entirely built and most of our future building must be replacement. Some of the older buildings are now being replaced especially in the business sections, but the housing supply seems to be greater than the demand.

During the year we made inspections of refrigerator connections especially in the food stores, and we found a number where the waste pipes were directly connected to the house sewers. These conditions have been eliminated.

House sewer replacements caused by tree roots entering the sewers were not so numerous as the preceding year. In each case the tile pipe has been replaced by iron pipe. A tabulated summary of the Division activities follows.

Respectfully submitted,

CHARLES A. HALLGRING,
Chief Plumbing Inspector

DIVISION ACTIVITIES

Plans Approved—

	1928	1927
New systems	1,055	
Addition to existing system	935	1,990
Sewer inspections	864	1,294
Plumbing inspections	7,378	7,156
Special inspections	343	328
Final plumbing inspections	2,012	2,180
Water tests	1,594	2,026
Smoke tests	894	1,202
Plumbing permits issued	1,990	2,556
Sewer permits issued	573	949
Relay sewer permits issued	96	132
Cesspool permits issued	0	2
Septic tank permits issued	5	0
Complaints received	179	57
Violation notices served	142	69
Notices complied with	122	64
Suit cases instituted	14	12
Suit cases discontinued	9	7
Penalties for violations	\$200	\$350
Hours in court	21	41
Applications for M. P. license examination	59	46
Passed M. P. license examination	23	17
M. P. licenses issued—new, 22, renewed, 477	499	489

ANNUAL REPORT

OF THE

**Communicable Disease
Division**

ANNUAL REPORT
OF THE
**Communicable Disease
Division**

To Doctor Charles V. Craster, Health Officer.

Dear Doctor:

The report of the Communicable Disease Division is herewith submitted to you for the year ending December 31st, 1928.

During the year there were more than 6 000 cases reported over the year of 1927, practically all of this increase is shown in the measles cases reported, inasmuch as there were 6,329 for 1928 against 413 the previous year. Diphtheria had nearly twice as many cases as against the number for 1927, with scarlet fever showing a 40% reduction. German measles also showed a decided increase inasmuch as there were 1,296 against 121, about ten times the cases of the preceding year.

Our Schick work has been carried forward as in previous years and extending along a more intensive scale, with a house to house canvass of all those who failed to give assent on the school slips. This follow-up work has been carried out during the past several months with very favorable results.

Leprosy contributed the only real dramatic episode of the year in this Division. The story of John Santos, who escaped from the Isolation Hospital and was again apprehended after five days of intensive search upon the part of the Inspectors of this Division and later transferred to Carville, La., under the escort of our Chief Inspector, Irwin C. Dakin, and Inspector William Jennings, proves and illustrates the extremes to which this Department is confronted with and capably handled whenever necessary.

As the head of the Communicable Disease Division, I extend my appreciation to our Director, Hon. John F. Murray, our Health Officer, Doctor Charles V. Craster, and to each and every individual of this Division for their hearty co-operation and co-ordination in handling the routine work and meeting all emergencies as they arose during the past year.

Respectfully submitted,

J. W. GARDAM, M. D.,
Director Communicable Disease Division.

IRWIN C. DAKIN,
Chief Inspector Communicable Disease Division.

MONTHLY RECORD, 1928

1928	NUMBER OF CASES REPORTED											Disin- fections	MISCELLANEOUS		
	Diphtheria	Scarlet Fever	Measles	Epidemic Meningitis	Smallpox	Infantile Paralysis	Typhoid Fever	Whooping Cough	German Measles	Influenza	Total	Special Disinfections	Deaths	Notified	Unreported
January	107	97	447	1	0	0	0	223	82	16	973	24	4079	3	10
February	95	169	997	2	0	0	0	190	118	32	1603	32	4221	2	20
March	111	210	1714	3	0	1	2	127	209	58	2431	43	4728	1	23
April	94	125	1584	9	1	2	3	117	253	59	2249	58	4332	2	35
May	110	150	1090	8	0	2	1	136	359	30	1886	38	3122	1	23
June	19	103	335	2	0	0	0	117	231	15	998	22	1635	2	23
July	85	18	100	0	0	2	0	167	29	1	399	12	1472	1	12
August	52	8	21	0	0	4	4	137	2	3	232	10	1404	1	11
September	70	5	3	0	0	2	3	94	1	4	181	16	1397	1	6
October	113	12	6	3	0	0	1	115	3	15	268	23	1683	2	2
November	149	31	8	1	0	1	3	89	4	12	299	29	1903	1	10
December	181	44	24	7	0	1	2	109	5	530	903	59	1918	2	17
Total	1362	972	6329	36	1	15	19	1621	1296	775	12422	366	31894	19	192

DISEASES REPORTED BY WARDS FOR YEAR 1928

DISEASES	Total	Same Last Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Diphtheria	1862	696	235	44	85	28	53	91	87	60	125	79	51	41	97	112	94	80
Scarlet Fever	972	1422	40	25	36	10	2	97	33	65	161	28	73	25	132	56	46	123
Typhoid Fever	19	44	3	3	1			1		3					1	2		5
Paratyphoid	4	2						1		2	1							
Tuberculosis	932	889	71	65	100	44	59	58	64	45	81	52	37	31	62	68	50	45
Pneumonia	1696	1347	143	68	191	95	116	107	103	73	139	143	63	64	64	156	90	86
Pneumonia Broncho	1155	125	129	4	124	64	63	8	68	56	92	89	66	47	48	88	6	57
Epidemic Meningitis	36	15	1	1	3	1	3	3		1	5		2	1		8	3	4
Infantile Paralysis	15	39	1				1			2	3	2	1		1	2		2
Whooping Cough	1624	2144	59	48	105	54	47	106	69	99	249	74	51	76	103	154	63	224
Mumps	6929	413	489	202	471	221	265	468	392	444	512	362	406	291	453	514	351	588
Varicella Measles	1796	121	51	24	126	26	57	93	45	88	195	62	77	41	110	87	64	130
Cyckletox	134	2342	6	25	108	28	47	88	43	112	225	47	35	35	78	110	67	257
Measles	777	2038	80	38	68	18	10	26	32	62	111	22	38	9	97	52	26	88
Trachoma	3	15			1												1	1
Ophthalmia Neonatorum	13	11	1		3			2	3	2		1					1	
Erysipelas	225	255	13	8	27	10	11	10	11	19	10	13	10	11	22	14	19	17
Malaria	0	3																
Puerperal Fever	7	12		1			1				1	1					1	2
Puerperal Septicemia	15	1	2		2		1			1	1	1	1	1		2	2	1
Scarlet	1	1			1													
Mental Deficiency	19	27		3	1	3	1		3	1	2		3		2			

DISEASES REPORTED BY WARDS FOR YEAR 1928—Continued

DEPARTMENT OF HEALTH

131

DISEASES	Total	Same Last Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ergotism	1	94	1	1	8	1	2	6	12	4	10	5	4	5	1	6	5	5
Dysentery	2	5			1									1				
Tetanus	3	4		1		1												1
Anthrax	1	0									1							
Rabies	1	0																1
Influenza	15	286	48	77	78	52	28	27	42	69	84	48	35	25	45	3	34	6
Trichinosis	5	0					2			2		1						
Lead Poisoning	31	31				3	9	1	2	1	3	6	1	3	1		1	
Arsenic Poisoning	0	0																
Mercury Poisoning	1	1	1															
Compressed Air Poisoning	0	0																
Phosphorus Poisoning	0	0																
Gonorrhea	1289	1095	115	141	173	93	68	55	111	43	99	69	31	33	29	102	72	55
Syphilis	1257	949	88	143	211	100	58	63	114	29	87	64	39	24	31	116	58	32
Chancroid	17	15		2	5		1	2		1	2			1	1	1	1	
Encephalitis	20	20	2	1	2	1	3				3	1	1			2	1	3
Vincent's Angina	10	38	1		3			1	1				1	2		1		
Leptospirosis	2	2					1							1				
Total	1365		1682	918	1924	831	929	1352	1235	1289	2206	1170	926	768	1398	1726	1126	1883
Total same last year		15067	798	646	1606	613	551	831	873	1041	1697	654	653	426	1118	1497	662	1441

DISEASES REPORTED BY AGE PERIODS FOR YEAR 1928—Continued

DISEASES	M	W	Un- der 1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85 over
Smallpox	1	1	1												
Measles	1	1	1												
Diphtheria	5	6	1												
Tuberculosis	1	1													
Scarlet fever	1	1													
Whooping cough	1	1													
Polio	5	375	400	672	1031	12	6	101	13	11	52	51	37	60	68
Lead Poisoning	31	31		23	8										
Mercury Poisoning	1	1		1											
Phosphorus Poisoning	0														
Gonorrhea*															
Chancroid*															
Vincent's Angina	10	4	6	6	4										
Leprosy	2	2													
Total	1880	5645	915	1653	655	28	15	135	13	11	55	51	37	60	68

*Not included in age group

Y—Yellow in Black column

ANNUAL REPORT

1928

PRINCIPAL CONTAGIOUS DISEASES

DIPHTHERIA

1928—Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	9	1	9	3	1	12	6	9	10	3	2		12	18	5	7	107
February	13	3	9	1	1	4	7	7	16	1	1	1	4	15	6	6	95
March	18	8	5	2	2	5	17	3	18	4	2	3	7	8	7	2	111
April	1	4	7	2	2	4	3	4	14	1	4	3	7	7	2	13	94
May	18	3	9	3	5	8	8	4	10	4	6	3	11	7	5	6	110
June	26	6	13	6	6	21	13	6	14	12	16	4	16	13	8	14	197
July	16	2	2	2	2	11	2	1	4	7	5	4	8	5	5	7	83
August	8	3	6	1	4	2	1	2	5	7	1		3	2	3	4	52
September	17	1	7	3	2	2	1	2	7	3	2	3	3	5	8	4	70
October	22		5	1	12	2	11	6	3	8	5	5	9	9	9	6	113
November	24	5	4	1	9	11	12	4	7	20	1	11	10	12	11	7	149
December	44	8	9	3	7	9	6	12	17	9	6	4	7	11	25	4	181
Total	45	44	85	38	53	91	87	60	135	40	53	41	7	112	61	80	1,313

SCARLET FEVER

1928—Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	9		2	2	2	12	1	5	15	1	7	1	23	4	2	11	97
February	11	5	3		3	27	3	10	25	2	7	7	29	11	6	20	169
March	5	5	9	2	8	13	15	12	39	8	17	9	23	11	11	23	210
April	2	6	12	2	3	12	1	4	16	6	13	5	19	7	2	15	125
May	7	1	4	2	3	15	6	10	24	3	13	1	21	5	14	21	150
June	4	3	4	1	1	5	3	6	25	2	6	2	7	13	7	14	103
July		1			1	2		1	6		2		1	2		2	18
August						2	1	1	1	1	1				1		8
September													1				5
October						1	1	3	1	1	2		1	1		1	12
November	2	2	1	1	1	3	2	3	2	1	3		3	2	3	2	31
December		2	1			5		8	7	3	2		4			12	44
Total	40	25	36	10	22	97	33	65	161	28	73	25	132	56	46	123	972

TYPHOID FEVER

1928—Wires	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January																	
February																	
March		1											1				2
April													1			1	3
May																1	1
June																	
July																	
August	1	2														1	4
September			1					1								1	3
October	1																1
November	1												1				3
December								1								1	2
Totals	3	3	1			1		3					1	2		5	19

TUBERCULOSIS

1928—Wires	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	3	4	6	2	9	5	5	4	8	4	3	5	2	3	3	4	67
February	4	8	7	6	6	4	6	5	7	4	1	5	6	6	4	2	79
March	9	8	10	3	3	6	9	4	10	6	4	3	6	11	4	3	99
April	8	6	1	4	5		6	7	8	4	6	5	3	5	8	4	91
May	5	6	10	4	1	3	8			6	3		9	3	8	3	108
June	9	7	5	6	6		3			8	2	1	6	4	4	2	73
July	7	3	5	4	4		5	6	8	4	4	2	5	6	4	5	78
August	3	2		1	1	5	4		2	2	5	4	9	7	2	3	62
September	7	9	8	5	4	8				5	4	4	6	7	5	5	92
October	11	2		2	4			5	2	4	2		3	4	3	4	62
November	2	7	4	2	5	5	4	1	5	5	2	1	5	7	3	6	62
December	3	3		5			4	5	6	5	1	5	2	5	2	4	59
Totals	71	65	100	44	52	58	24	45	81	57	37	31	62	68	50	45	932

BRONCHO-PNEUMONIA

1928—Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	18	7	8	6	7	7	5	7	4	10	7	6	3	9	10	6	117
February	24	5	29	9	7	5	15	11	14	17	13	5	6	1	2	12	65
March	12	7	13	8	5	8	6	8	17	15	8	5	6	1	9	10	149
April	12	1	10	5	14	8	6	9	10	17	7	6	4	4		6	146
May	14	6	12	7	11	4	5	6	17	10	9	5	8	10	9	7	141
June	7	2	5	4	3	5	4	1	10	2	2	2	5	6	3	2	63
July	8	1	4	5	1	2	2		3	6	5	4	1	4	1	1	43
August	2	2	5	3		1	3	2	3	3	1	1	2	+	2	1	35
September	3	1	6	3	4	1	2	1		2	3	1	2		2	4	35
October	9	1	5	2	2	1	8	2	1	1	2	4	2	3	3	2	48
November	11	3	8	2	2	2	2	2	5		1	5	3	4		2	54
December	17	11	9	10	7	7	10	7	8	6	8	3	6	9		5	130
Totals	129	47	114	64	63	51	68	56	92	89	66	47	48	88	47	5	1155

EPIDEMIC MENINGITIS

1928—Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January					1												1
February									1								1
March	1													2			3
April			1						2					2	2		5
May														5			5
June														1		1	2
July																	
August																	
September																	
October				1					11	1		1	1				15
November					1												1
December				1	1	3				1		1					6
Totals	1	1	3	1	3	3			1	5		2	1	8	2	1	25

CHICKENPOX

1928—Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	6	2	16	7	6	9	3	13	26	12	3	3	5	11	6	10	138
February	5	2	15	2	8	13	8	8	19	12	1	2	16	15	7	30	163
March	5	4	5	6	13	12	5	3	7	6	4	5	6	18	17	25	141
April	6	2	7	4	4	11	3	3	5	6	1	1	10	5	10	18	96
May	6	2	7		9	9	3	10	12	1	4	3	4	8	8	15	104
June	5	1	8	1	1	10	6	3	17	1	1	1	7	11	4	23	100
July		1	5	3		1	4		12	1	4	1	4	1	1	8	46
August	1		2		1			1	2				1			5	13
September			2	4	1				2					1	1	3	14
October	3	1	2				2	20	14		3	4	4	4		23	80
November	9	2	17		1	14	6	26	40	2	6	2	7	14	2	47	195
December	21	8	22	1	3	9	3	30	69	6	8	13	14	22	6	55	290
Totals	6	25	108	28	47	88	43	117	225	47	35	35	78	110	67	257	1377

MEASLES

1928—Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total	
January	144	28	47	9	8	79	11	21	2	9	4	6	9	35	40	16	447	
February	90	52	94	5	1	21	118	68	58	3	4	18	31	8	9	85	997	
March	94	61	179	46	71	152	131	118	138	88	73	63	109	166	114	161	1714	
April	6	22	84	2	117	9	65	112	1	9	0	14	16	122	44	43	1584	
May	72	40	89	58	48	76	46	83	191		60	48	65	77	41	108	1090	
June	20	5	2	6	11	20	16	20	2		27	10	52	29	8	51	335	
July	3		4	2		8	1	4	29	5	6		19	4	5	16	100	
August						1	1	3	3				3	1	1	6	21	
September			1	2													3	
October								1	2	2			1				6	
November			1				1	1	1	1		1	1		1	1	8	
December			3	1		1	2	1	8	2		1	2	2		1	24	
Totals	482	202	441	71	71	765	168	392	444	512	162	306	51	453	514	551	588	6329

GERMAN MEASLES

1928- Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
1			1		11	20	6		1	7	24	2	11	3		8	8
2			2	11	4	17	15	12	2	7	12	7	11	3		8	8
3			3	28	10	8	17	9	14	15	12	18	10	11		1	26
4			6	23	6	8	15	4	18	40	5	20	5	22		33	25
5			10	38	21	1	25	14	25	56	5	21	1	60		45	55
6			2	20	2	3	14	5	24	60	4	6	2	27		8	3
7				1			1		2	9		2		4		1	9
8				1						1		1					3
9																	1
10																	3
11				2	11					1			1				4
12				1				1	2	11							5
Total	51	24	126	26	57	93	45	88	195	62	77	41	130	87	64	130	1296

WHOOPIING COUGH

1928- Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
1	14	6	13	17	5	15	14	12	33	8	3	4	15	19	10	25	223
2	8		23	11	1	14	8	7	32	8	6	6	15	13	14	18	190
3	5		6	5	2	8	3	5	31	8	2	4	8	15		22	127
4	4		2		3	3		2	24	5	11	3	13	19	7	21	117
5	14	4	6	8	6	8	4	6	29	5	2	6	4	10	8	16	136
6		5	6	1	7	13	4	4	15	12	2	16	4	14	1	8	117
7	1		9		3	18	11	14	32	5	6	3	6	10	3	35	167
8	4	5	6			13	1	7	19	9	3	8	12	15	5	33	137
9	8		11		4	7	6	8	10	2	4	3	2	19	1	11	94
10	17		12	3	5	1	6	11	10	4	5	8	10	3	1	15	115
11		5	7	3	3	4	8	8	6	2	2	5	4	11	4	12	89
12		6	4	6	8	2	4	15	8	6	5	10	10	6	9	8	109
Total	99	48	105	54	47	106	69	99	249	74	51	76	103	154	63	224	1621

ERYSIPELAS

1918 Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January							1	4	1	1	1	1		1	2		14
February	1	1	5			1		4	1		2	2			3	2	28
March	2	5		5				5		1	3	2	4				31
April	1					1		7	2	3	1	1		1	5	4	34
May	1		5		2		5	3	1		1	1	2	4	1	5	31
June			5	1	1				2	1	2	5		1	2	2	24
July	1		2		1		1			1	1			1			9
August							5			2	1	1					
September							5						1	2	2		5
October				1		1		1		2		1	1	1			7
November	1	1		1		1				2			4	1			10
December		4	2	6			2	1		2			3		2	2	26
Totals	13	8	7	10	11	10	11	19	10	13	10	11	22	14	16	1	225

INFANTILE PARALYSIS

1928 Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January												1					
February																	
March														1			1
April										1	1					1	2
May									1								2
June																	
July								1	2		1		1			1	4
August								1									2
September																	
October																	
November														1			1
December						1											1
Totals					1			1	3	1	2		1				5

LOBAR-PNEUMONIA

1928 Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	12	7	10	8	14	17	7	7	21	14	10	3	7	13	18	10	173
February	18	11	30	19	14	9	11	4	18	22	16	7	8	76	30		30
March	21	7	23	21	18	12	15	11	29	21	5	5	10			10	239
April	15	9	20	14	21	8	11	10	16	20	8	7	8	19	8	10	126
May	21	9	22	10	13	12	22	6	17	18	9	8	8	0	25	8	251
June	17	5	15	8	10	3	10	4	5	6	3	8	4	9	8	8	117
July	5	1	9	2	1	2	1	2	2	3		2	2			4	44
August	2	3	8	2	5	1	2	2	4	2	1	2	3	1	2	4	43
September	1	2	10		4	3	2	1	4	2	1	2	1			2	39
October	5	5	13	3	5	10	7	3	5	6	5	3	5				71
November	10	2	12	3	4	9	5	8	7	11	1	6	3	10	8		99
December	16	7	19	5	7	16	10	15	11	18	4	11	5	18	17	10	212
Totals	143	68	191	95	116	102	103	73	139	143	63	64	64	156	99	8	1,200

MUMPS

1928 Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	8	6	9	1		1	21	10	7	3	1	3	1	34	1		109
February	8	2	13	2		1	6	4	14	4	2	7		21	8	3	105
March	9	6	12	1		1	4	3	11	6	3	6		23	8	4	100
April	8	11	5	2		1	21	4	6	7	3	8	1	12	8	4	62
May	3	2	3	1			5	2	3	4	1	5	2	3	5		48
June		1	3	3			1	2	1	3		3					18
July	1	1	1				1			4	1	1				4	15
August		1	1					1	6	1							11
September	2	2	2				1		1	1	2		1	1			18
October	9	6				5			5	1		3					34
November	15	5	10	3	3	3	2	10	23	5		1			3	2	111
December	20	5	9	5		2	4	9	45	3	3		3	8	7	20	148
Total	8	38	68	18	10	26	32	62	111	22	38	9	97	5	2	58	710

ENCEPHALITIS LETHARGICA

1928 - Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	1																2
February																	
March	1		1											1			3
April		1	1						1								4
May									1								1
June																1	1
July					1									1			2
August																	
September				1					1							1	3
October					1						1						2
November										1					1		2
December																	
Total			2	1	3				3	1	1			2	1	3	20

INFLUENZA

1928 Wards	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January					1		5				1				1		8
February	4	1	5				3		6	1	1	2		5		1	31
March	6	1	4	4	1		1		1	3	2	2		6	1	6	38
April	5	1	4	4			1		3	1	4		5	5		5	52
May	1						3	5	1		1	2			1	5	20
June			1	1	5	2	3	1			1	2				1	15
July					1												1
August		1												1			3
September				1						1						1	4
October											1				1	2	5
November	1											2					2
December			5		5	10		5	38	5	4	27	39	44	15	5	140
Total	18	2	10	9	28	16	14	11	38	16	35	25	45	54	17	5	345

ANNUAL REPORT

OF THE

Food and Drug Division

ANNUAL REPORT

OF THE

Food and Drug Division

To Charles V. Craster, M. D., D. P. H., Health Officer

Dear Doctor:

I herewith submit the report of the activities of the Division for the year ending December 31, 1928.

Respectfully,

SAMUEL G. SHARWELL,
Chief Food and Drug Inspector.

Dairies

"A Raw" dairies supplying milk to Newark inspected as to sanitation, methods practiced, equipment, sterilization, etc. 30

(The dairies are located within a radius of 8 miles of the City of Newark.)

Reinspections have been made of the "A Raw" dairies at least three times every month or sooner whenever they warrant same.

Approximate number of cows on premises where grade "A Raw" milk is produced totals 2,643

Approximate amount of grade "A Raw" milk produced daily, quarts 22,197

In August 1928 the City of Newark passed an ordinance prohibiting the sale of grade "A Raw" milk (not certified), said ordinance to go into effect on September 1, 1928.

A committee, representing the grade "A Raw" producers and dealers, requested a year's postponement, stating that their pasteurizing plants were not ready for operation. They explained that should they be barred from producing milk and offering it for sale, the large distributor would secure their trade as the smaller dairymen were the only ones handling raw milk and if they were compelled to buy all pasteurized milk, they would have to purchase the same from the large dealer.

Therefore it was agreed that the dairymen would be permitted to sell raw milk until September 1, 1929 (one year extension of time), provided they would reduce the amount of their raw milk sales 25% every three months. The dairymen were informed that they would not be granted a license to sell "Raw Milk" but that they would receive verbal permission. They all signed an agreement consenting to the required reductions concerning the sale of "Raw Milk."

Cows

The tuberculin testing of cows in all the "Raw" dairies in the territory located within a radius of 8 miles of the city is under the direct supervision of the State Department of Agriculture. The cows are subjected to the subcutaneous and ophthalmic tests.

Grade "A" Pasteurizing Milk Plants

"A" pasteurized dairies inspected and scored

900

(These dairies are delivering milk to 26 creameries and receiving stations shipping into Newark.)

NOTE: Veterinarian Certificates as well as a copy of our inspection score card, are required of each and every grade "A" pasteurized dairy. The score card is required to be properly answered by a competent employee of the creameryman.

Grade "B" Pasteurizing Milk Plants

"B" pasteurized dairies inspected and scored . . . 1,267

(These dairies are delivering milk to 24 creameries and receiving stations shipping into Newark.)

Of the 2,167 dairies inspected, both grades "A" and "B", 774 dairies were barred from delivering milk to any source of supply entering the City of Newark. When the dairymen comply with the requirements of this Department they were reinstated. This number is great, inasmuch as 700 of them were supplying one dealer and were automatically excluded when the supply was barred.

Creameries

During the year there were 80 creameries and receiving stations, grades "A" and "B", shipping milk into Newark. Total number of inspections made of plants were 167. There were 9 milk plants excluded, due to not passing inspection as to sanitation, equipment, etc.

Sediment samples of milk were taken from the milk delivered by the dairymen, at the creameries. There were 9,985 samples of milk taken, of which 8,541 were clean, 1,048 were dirty, 251 were very dirty and 145 were filthy.

There were 11,190 quarts of milk excluded. The milk was barred from entering the creameries and receiving stations when it was found not to be properly cooled or when the sediment tests appeared to be dirty, very dirty or filthy.

This Department permits the dairymen to deliver morning's milk to the creamery without being cooled, provided that the milk (grade "A") is collected at the creamery before 8:00 A. M. and the "B" milk, if delivered, before 9:00 A. M. Evening's "A" milk must be cooled to a temperature of 50

degrees Fahrenheit or lower, and "B" milk to 60 degrees Fahrenheit or lower.

Certified and Pasteurizing Milk Plants

There are five pasteurizing milk plants located within a radius of eight miles of the City of Newark from which milk is offered for sale. A total of 54 inspections were made of the plants.

Six certified milk supplies deliver milk in this city. The Medical Milk Commissions supervise the dairies and creameries in conjunction with this Department.

Milk Bacterial Count

	Maximum Count per Sample
Certified	10,000
"A" Raw	100,000
"A" Pasteurized	30,000
"B" Pasteurized	50,000

Milk Chemical Counts

	Fat Content	Total Solids
Certified	<div> <div>4%, if below must</div> <div>have printed on cap</div> <div>3.50%</div> </div>	11.50%
"A" Raw	<div> <div>These grades of</div> <div>milk must contain</div> <div>at least 3% fat and</div> </div>	11.50%
"A" Pasteurized		
"B" Pasteurized		

Milk Examinations

Sealed chemical milk samples taken	5,146
Sealed chemical milk samples below legal standard	45
Bacteria and sediment milk samples taken in Newark	1,772
Bacteria milk samples above maximum count allowed	260
Streptococci and pus found in milk samples	67

Sediment tests taken of milk at creameries, also temperature tests taken	29,955
Sweet and sour cream samples taken	299
Sweet and sour cream samples below legal standard	33

NOTE: When streptococci and pus was found to be contained in milk, the dairyman was immediately notified, either by letter, telephone or by some other means of communication, to engage the services of a veterinarian to examine the cows on the dairy premises to find the infected cows. Cows found infected were ordered isolated, and the milk not used for consumption.

Fines Paid for Samples of Milk and Cream Below Legal Standard

Milk and sour cream samples	\$685 00
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NOTE: Seven costs of court were collected on milk and cream fines turned in for suit. \$1 85 cost on each case was collected, making a total of \$12 95. (\$165 00 for milk and cream fines was collected in Court.)

Milk and Cream Licenses

Store and wagon milk and cream licenses issued	\$5,320 50
169 retail milk dealers secured the wagon or vehicle licenses.	

Ice Cream Samples Analyzed

The following number of ice cream samples were obtained from stores or from the manufacturer during the year:

- 235 samples of ice cream analyzed (114 manufacturers)
- 2 samples averaged above 8% milk fat
- 23 samples averaged below 8% milk fat
- Highest sample of ice cream analyzed contained 26.50% fat.
- Lowest sample of ice cream analyzed contained 2.75% fat

When samples of ice cream were found to contain less than 8% milk fat, as is required by the State law, passed on February 20, 1922, the manufacturer was summoned to a hearing. If the curfew is repeated, legal proceedings are instituted.

Foodstuffs Condemned**POULTRY AND SEAFOOD**

Sardines in tomato sauce, cans	1,000
Tuna fish, cans.	31
Herring and sardines, cans	1,969
Chops, lbs	3

OTHER FOOD PRODUCTS

Milk, quarts	14,154	Strawberries, crates	107
Pretzels	50	Cantaloupes	18
Miscellaneous groceries, lbs.	369	Blackberries, quarts	32
Eggs	564	Honeydew melons	25
Cherries, lbs	30	Egg plants	636
Akra, can	1	Candy, lbs.	3
Peaches, crates	43	Pears, boxes	2
Bread, loaves	30	Peppers, bushels	82
Castile soap, cakes	9	Grapes, boxes	6,771
Watermelons	248	Aloes, lbs.	500
String beans, bushels	15	Chestnuts, bbl.	1
Tomatoes, boxes	12	Prunes, bushels	13
Horseradish, bottles	22	Farina, pkg.	1
Apples	32	Oranges	600

Samples Taken for Examination

Food and drug samples taken for examination Some of the samples were secured in the presence of a State Inspector.....	586
Dishwater samples taken in restaurants to be examined for the bacteria count	12

Persons Summoned to Attend Food and Drug Hearings

Milk dealers summoned	18
Milk dealers who were summoned but failed to put in their report	3

Milk dealers who did not appear at hearings when summoned, unless a satisfactory explanation was given, were barred from serving dairy products in the City of Newark. In not one case was this necessary.

Restaurant proprietors, grocers, bakers, confectioners, mineral water manufacturers and druggists summoned to appear in reference to violating the State Sanitary Act, Sanitary Code, Milk Ordinance and the law regarding the sterilization of utensils 1,022

(Of this total, 298 failed to attend the hearings and 14 discontinued business. Legal proceedings were instituted against those who failed to appear after being notified for a second time.)

Court Cases

Cases sent to the Legal Department.	70
Cases fined (plus cost of Court), \$165 00	7
Cases discontinued, payment of Court cost (\$1 85, \$112 85 (Work having been carried out or out of business.)	61
Summonses not served (violators out of business)	9
Cases pending	3

Oysters and Clams

Oyster and clam samples taken for examination.	66
(These samples were taken from dealers and not direct from the grower.) These samples were taken from 14 dealers who received the seafood from 36 shippers.	
Number of samples of oysters and clams that scored above the 20 points, the maximum count (or score) allowed by law	12
Number of samples scored within the 50 points, the maximum count allowed by law.....	51
Number of samples obtained and were not examined	3
Highest score	500
(Found to be contained in oysters)	
Lowest score	0
(Found to be contained in oysters)	

NOTE: During the year, this Department has had considerable trouble with reference to oyster shipments being properly tagged, especially shucked oysters.

The State law requires all containers or vessels used for shucked oysters not to be used a second time. The oysters must be shipped the day they are removed from the shell.

The health authorities in the various States have authority to approve oyster beds and shucking houses. In turn the beds are approved by the United States Public Health Service. The beds certified to are listed in the United States Public Health Service Bulletin and forwarded to all health authorities throughout the country. This enables us to keep a check on all approved sources.

The State law requires that the shipping tag bear the certification number of the oyster beds, date when shipped and the person shucking the oysters or dealer's certification number, if purchased through a dealer other than the owner of the oyster beds.

With dealers located in New Jersey, we have very little trouble in checking up the required information to be placed on the tag, but New York City has a private number of their own on their tag (not listed by the United States Public Health Service), and their code is unknown to us. Where small shipments of seafood have been sent us containing only the New York City number, we had the same returned.

This Department has had an understanding with New York City shellfish authorities to furnish us with a list of all their shippers and numbers. A letter was also sent to each dealer informing them that they must properly tag their oyster shipments to meet with our requirements, by next season, or we will bar their oysters from sale here.

When oysters were found to contain more than 50 points on their score, the shipper was notified not to make any further shipments until we obtained samples and were fully convinced that the shellfish was fit for consumption.

Food Establishments

Inspections were made of the various establishments where food was prepared and sold, for the purpose of enforcing the

State law, sections of the Sanitary Code, and the State law in reference to the sterilization of utensils.

Inspections made of grocery stores for the purpose of checking up on milk licenses and sanitation	6,110
Restaurant inspections (also scored)	6,818
Restaurant certificates issued (scored 80% or over as to sanitation, sterilization and equipment)	345
Local milk pasteurizing plants inspected	9
Confectionery and ice cream establishments inspected	1,417
Bakery inspections	1,464
Inspections made of food concessions in Amusement Park	44
Inspections made of food concessions in Centre Market	187
Soda water plant inspections	132
Premises inspected where milk is bottled by dealer	18
Hospitals and institutions inspected in reference to the sterilization of utensils and dishes	12
Macaroni shops inspected	60
Olive oil concerns inspected	19
Inspections made of milk shipments checked up at various railroads	199
Peanut and gum vending machines inspected	86
Vegetable store inspections	182
Magnesia plant inspected	1
Wholesale pretzel bakeries inspected	2
Egg candling plant inspections	4
Delicatessen store inspections	438
Seafood establishment inspections	149
Soda water fountain inspections	1,178
Lemon-ice plant inspections	83
Drug store inspections	158
Chewing gum factory inspections	6
Egg breaking plant inspections	3
Food exposures investigated	217
Wholesale grocery plant inspections	9
Other miscellaneous food establishments inspected	210
Venders' pushcarts and vehicles inspected as to sanitation food handler examination and either sterilization or paper cup service	83
Total inspections	19,598

Recommendation Notices

Recommendations and notices were served on the proprietors of retail vegetable and food establishments where necessary to comply with their requirements of the State law and local Sanitary Code.

Notices served 6,077

(Of the 6,077 notices served, after reinspections were made, 4,395 were found O. K.)

There were 300 complaints received during the year received either by letter, telephone or in person. In each complaint and information is written on a history card on file in this office.

Miscellaneous Notices Served

During the year there were notices of instruction, rules and regulations sent to (or served) all food establishments, creameries and dairies.

Total notices served 29,755

Food Handler Physical Examination

(Examined Semi-Annually)

Restaurants	January 2 and July 1
Grocers and Milk Dealers	March 1 and September 1
Confectioners	May 1 and December 1
Bakers	June 1 and December 1
Miscellaneous (Butchers, Vegetable and Fruit Dealers, etc.)	June 1 and December 1

Managers or proprietors of restaurants were warned against keeping their employees' health examination certificates. When an employee would leave a restaurant, the manager would retain her or his card for the next person seeking employment.

This Department now has the identification cards printed, requiring their (food handler's) signature. The food handler is asked his or her name by the inspector to see that they have their own food handler certificate.

Another correction was made in reference to the unemployed securing a food handler certificate, especially when they reside out of the city. In some of the suburban towns, they come to see at the clinics for an examination. Some food handlers have been coming to this Department, representing themselves as unemployed, to save the fee for an examination and then present their health card to the restaurant manager in the town they seek employment. In one case an owner of a restaurant secured a health card in this Department and it was found he had a venereal disease, probably contracted since his examination. The health authorities wanted to bring suit against him, but thought they might not be able to secure the health card from him. This Department managed to obtain the health card from the man claiming it was obtained under false pretenses. The man was compelled to immediately discontinue his services as a food handler.

At present, this Department does not issue a permanent card to food handlers who are unemployed living out of town. A temporary permit is given the food handler until a food handler position is secured in this city. Newark does not recognize food handler certificates issued by other cities.

(See attached charts for examinations made)

FOOD HANDLER REJECTIONS DURING THE YEAR 1928

Positive cases of tuberculosis	3
Positive cases of venereal disease	54
Total	57

FOOD HANDLER STATISTICS, 1928

RECAPITULATION

	Total	Male	Female	White	Col.	Chinese	Re-Ex.
Restaurant	12,048	6,748	5,300	10,603	1,211	234	117
Grocery-Milk Co....	4,905	4,086	819	4,843	62	.....	30
Bakery	2,444	1,989	455	2,419	25	.....	11
Confectionery	1,648	979	669	1,632	16	.....	6
Miscellaneous	1,039	766	273	1,023	16	.....	-
Total	22,084	14,568	7,516	20,520	1,330	234	164

RESTAURANT FOODHANDLERS

Examined in Department—

Total	Male	Female	White	Colored	Chinese	Re-Exam.
11,017	6,504	4,513	9,614	1,169	234	117

Examined Outside of Department—

Total	Male	Female	White	Colored	Chinese	Re-Exam.
1,031	244	787	989	42	.	

Recapitulation—

Total	Male	Female	White	Colored	Chinese	Re-Exam.
12,048	6,748	5,300	10,603	1,211	234	117

Occupations

Waiters	1,272
Counter men	1,733
Cooks-Chefs	2,205
Waitresses	2,709
Miscellaneous (Dish Washers, etc.)	4,129
Total.....	12,048

GROCERY-MILK FOODHANDLERS

Examined in Department—

Total	Male	Female	White	Colored	Chinese	Re Exam.
2,776	2,124	652	2,716	60	..	30

Examined Outside of Department—

Total	Male	Female	White	Colored	Chinese	Re-Exam.
2,129	1,962	167	2,127	2	..	.....

Recapitulation—

Total	Male	Female	White	Colored	Chinese	Re Exam.
4,905	4,086	819	4,843	62	.....	30

Occupations

Chain Store Groceries	681
Retail Groceries	2,782
Retail Milk Dealers }	
Milk Co. Employees }	1,442
Total	4,905

BAKERY FOODHANDLERS

Examined in Department—

Total	Male	Female	White	Colored	Chinese	Re-Exam.
1,133	882	251	1,108	25	.....	11

Examined Outside of Department—

Total	Male	Female	White	Colored	Chinese	Re-Exam.
1,311	1,107	204	1,311	.....	.....	.....

Recapitulation —

Total	Male	Female	White	Colored	Chinese	Re-Exam.
2,444	1,989	455	2,419	25	.....	11

Occupations

Retail Bakeries	1,217
Wholesale Bakeries—	
Employees	764
Drivers	463
Total	1,227
Total	2,444

CONFECTIONERY FOODHANDLERS

Examined in Department—

Total	Male	Female	White	Colored	Chinese	Re Exam.
1,194	696	498	1,178	16	.....	6

Examined Outside of Department—

Total	Male	Female	White	Colored	Chinese	Re Exam.
454	283	171	454	.....	.....	.....

Recapitulation—

Total	Male	Female	White	Colored	Chinese	Re-Exam.
1,648	979	669	1,632	16	.....	6

Occupations

Beverage Co. Employees	.....	90
Ice Cream Co. Employees	.....	191
Candy Factory Employees	.....	242
Retail Candy Stores.	.....	1,125

Total..... 1,648

MISCELLANEOUS FOODHANDLERS

Examined in Department—

Total	Male	Female	White	Colored	Chinese	Re-Exam.
378	318	60	363	15	.....	.....

Examined Outside of Department -

Total	Male	Female	White	Colored	Chinese	Re-Exam.
661	448	213	660	1	.....	.....

Recapitulation—

Total	Male	Female	White	Colored	Chinese	Re-Exam.
1,039	766	273	1,023	16	.....	.....

Occupations

Butcher Stores	47
Sea Food Concerns (Fish-Oysters)	87
Drug Stores	137
Fruit and Vegetable Stores	201
Miscellaneous	567

Total..... 1,039

MILK RATINGS FOR 1928

CERTIFIED 10,000 BACTERIA PER C. C.

DEALER	PRODUCER	No. Bact. Samples	Average Bact. Counts	No. Chem. Samples	Average Chem. Counts	Average Chem. Analysis T. S.
Fairfield D. Co.	Raritan V Farms	8	2,575	1	3.27	11.90
Borden's F. P. Co.	Earlville, N. Y.	15	2,600	3	3.90	13.01
Woodbrook Farms	Own	13	4,125	3	3.93	12.96
Sheffield Farms	Own	9	4,616	6	4.12	13.13
Borden's F. P. Co.	Walker-Gordon	12	8,000	1	4.10	13.33

A RAW 100,000 BACTERIA PER C. C.

Feins Daniel	Chas Feins	1	3,700	-	-	-
Becker, H & Son	Own	4	6,250	2	5.10	14.49
Lempert, P	Own	1	10,000	-	-	-
Wolman, E. H.	Eastern Dairy	1	20,000	-	-	-
Tewes, Herman	Feins	2	21,000	1	3.50	11.96
H. Hman, Walter	Chestnut Dairy	9	26,110	1	3.30	12.23
Doan Theo	Tuscan Dairy	3	30,000	1	3.10	11.70
Schettino, M	Chestnut Dairy	5	32,000	2	3.10	11.90
Hacy, Arthur	Feins Bros	4	12,500	1	3.50	12.39
Dolan Michael	Tuscan Dairy	5	33,000	2	3.07	11.92
Schmutz, John	Chestnut Dairy	2	15,000	-	-	-
Co Chas	Ideal Dairy	3	36,666	-	-	-
Nadler Moe	B. Nadler	3	40,000	1	3.70	12.63
Seddon Chas	Own	5	41,000	1	*2.76	11.53
Fernman Abraham	Tuscan Dairy	2	45,000	-	-	-
Fourte, Norman	Feins	2	47,500	-	-	-
He de John	Own	7	48,275	3	4.03	11.03
Clanton M Co	Feins & Sons	6	48,750	1	3.40	12.20
Ruscock S	Tuscan Dairy	3	50,000	1	3.60	12.44
Bandra & Nog	H. Avlexman	5	59,000	1	4.00	12.92
Babic, Joseph	Tuscan Dairy	4	60,000	1	3.40	12.20
Korrr, Wm	Tuscan Dairy	5	62,000	2	3.50	12.43
Kinney, Daniel	Frick Bros	2	62,500	1	3.60	12.30
Feins, B & F	Chestnut Dairy	2	62,500	-	-	-
Feins, Joseph	Chas Feins	4	66,000	2	3.20	12.09
Ash, Edward	Marcus Levine	8	68,000	1	3.80	12.90
Singewald, Hugo	Ed Momm	5	70,750	-	-	-
Hecht, Joe	Marcus Levine	7	73,571	1	3.40	12.35
Riedel, Herman	Eastern Dairy	4	73,750	1	3.50	12.39
Wolman Frank	Tuscan Dairy	6	75,000	2	3.55	12.27
Ebert Gus	Own	5	75,000	3	3.36	11.70
Schuler, Fred	Tuscan Dairy	6	76,250	1	3.30	12.30
No., Leroy	Feins	12	80,830	3	3.46	12.47
Otto Edward	Eastern Dairy	6	81,660	1	3.60	12.37
Forst Herman	Marcus Levine	6	82,000	1	3.40	12.20
Young, Ed	Moschnetz Bros	7	84,750	2	3.70	11.93

* Below legal standard.

A RAW 100,000 BACTERIA PER C. C.—Continued

DEALER	PRODUCER	No Bact. Samples	Average Bact. Counts	No Chem Samples	Average Chem Counts	Average Chem Analysis T. S.
Campbell, J	Eastern Dairy	6	86,250	1	3.40	12.98
Krueger, Gus	Marcus Levine	7	88,500	3	3.80	12.48
Zimmerman, Robert	Feins	5	92,000	1	3.50	12.01
Ludolph, Adolph	Tuscan Dairy	6	93,750	1	3.40	11.98
Jockel, Fred	Tuscan Dairy	2	97,500	1	3.60	12.30
Weinstem, Harry	Tuscan Dairy	4	99,000	1	3.50	12.32
Hoffman, Julius	Chestnut Dairy	1	100,000			
Meeker, E.J.	Ed Momm	1	100,000			
Stoepe, Wm	Tuscan Dairy	1	100,000			
Chapman Bros.	Ideal Dairy	2	105,000			
Hanopol, Max	Eastern Dairy	8	111,150	3	3.40	12.00
Rueter, Paul	Feins Bros	8	118,125	1	3.10	11.70
Smith, C. H.	Nathan Drake	4	126,250	1	3.80	12.82
Schuetz, M. E.	Feins Bros	6	133,125	1	3.50	12.61
Brick Bros	Own	6	133,125	1	4.20	13.09
Dreyer, John	Tuscan Dairy	4	138,750	1	3.70	12.42
Wadekehr, W.	Tuscan Dairy	4	141,000			
Peckerman, Jacob	Chestnut Dairy	5	147,000	2	3.30	12.04
Voik, Henry	Eastern Dairy	5	148,000			
Naroden, J.	Il Feins	5	154,000	1	3.20	12.03
Flaxman, Benj.	Marcus Levine	5	158,000	1	3.50	12.21
Thiele, Philip	Feins Bros	5	168,000	1	3.30	12.08
Stroh, John	Own	21	172,850	6	3.45	12.24
Krueger, F.	Idea. Dairy	9	177,330	3	3.16	11.82
Speizer, Herman	Feins Bros	5	181,000	1	3.60	12.44
Singewald, Hugo	Ed Momm	2	200,000			
Sonntag, Wm.	Chestnut Dairy	4	207,000			
Weihersmüller, C.	Tuscan Dairy	7	215,000			
Cohn, Jacob	Ed Momm	5	226,000	1	3.10	11.99
Feins, Herman	Chestnut Dairy	4	267,500	1	3.20	11.89
Knorr, Philip	Global Farms	8	282,165	2	3.10	11.97
Weibel, Martin	Own	4	301,250	2	3.45	11.96
Pogribsky, M.	Ed Momm	5	318,000	1	*2.77	*11.37
Goldberg, Harry	Own	4	326,200	1	3.80	12.63
Treusch, Conrad	Tuscan Dairy	5	351,000			
Hess, Wm	Tuscan Dairy	6	504,300	1	3.50	12.32
Tooter, Moe	Feins	6	542,660			
Foragate Farms	Own	4	645,000	1	3.20	12.11
Sonntag, Frank	Feins Bros	8	761,830	1	3.10	11.62
N. J. Dairy Farm	Feins Bros	4	822,200	1	3.30	12.08
Crump, James M.	Own	3	850,000	1	3.50	12.03

A PASTEURIZED 30,000 BACTERIA PER C. C.

Schroeder, Carl	Supreme M & C. Co.	1	1,000			
Thiele, Philip	Union M. Co.	1	2,000	1	3.50	12.32
Kisilewicz, M.	Dairymen's L. Inc.	1	2,000	1	4.00	12.85

* Below legal standard.

A PASTEURIZED 30,000 BACTERIA PER C C —Continued

DEALER	PRODUCER	No. Bact. Samples	Average Bact. Counts	No. Chem. Samples	Average Chem. Counts	Average Chem. Analysis T. S.
Hoffman, Walter	Feins	1	2,000			
Crastnopoie, M.	Supreme M & C. Co.	4	2,250			
Cetraro, John	Supreme M & C. Co.	1	2,133			
Klatt, Louis	International M. Co.	1	3,000			
Wils, John	International M. Co.	1	3,000			
Williams, M. C.	International M. Co.	2	3,000			
Heinrich, C.	Model Dairy	6	3,250	2	3.55	12.24
International M. Co.	Own	2	3,250			
Smith, Thos. E.	International M. Co.	4	3,250	2	3.65	12.28
Dolan, Michael	Orange Dairy	4	3,500	2	3.55	12.27
Bonanno, Sal.	Supreme M. & C. Co.	4	3,750	1	4.00	12.70
Spankowitz, L.	Dairymen's L. Inc.	4	4,000	1	3.90	13.09
Noll, Leroy	Feins	3	4,350	1	3.50	12.54
Weiss, Benj.	Model Dairy	7	4,400	2	3.33	11.99
Cannon, George	Dairymen's L. Inc.	7	4,750	1	4.00	12.99
Fairfield D. Co.	Own	10	5,000	2	3.05	11.79
Schettino, M.	Feins	1	5,000			
Smith, Carl W.	International M. Co.	3	5,000			
Larney, Patrick	Dairymen's L. Inc.	5	5,400	1	4.35	13.20
Borden's F. P. Co.	Briar, N. Y.	14	5,500	2	3.75	12.51
Dolan, Theodore	Orange Dairy	3	5,650	1	3.30	11.94
Forgione, I.	International M. Co.	7	5,666	2	3.35	11.52
N. J. Dairy F.	Dairymen's L. Inc.	4	6,250	1	3.70	12.34
Smith, Chas. H.	Dairymen's L. Inc.	5	6,300	1	4.20	13.23
Cohn, Jacob	International M. Co.	4	6,500			
National D. P. Co.	Dairymen's L. Inc.	4	6,550	1	3.80	12.39
Schroeder, Carl	Model D. Co.	11	6,783	4	3.52	12.05
Marengo, Frank	International M. Co.	7	7,000	2	3.60	12.44
Knorr, Wm.	Supreme M & C. Co.	4	7,500	2	3.60	12.44
Maseno, Nick	Dairymen's L. Inc.	6	7,625	3	3.83	12.77
Babe, Joseph	International M. Co.	3	7,650	1	3.10	11.77
Labella, Tony	Dairymen's L. Inc.	4	7,756	1	3.90	12.80
Hamm, George	Dairymen's L. Inc.	5	8,160	1	3.70	12.49
Sheffield Farms	Ulster, Pa.	16	8,790	4	3.77	12.47
LaPara, Frank	Dairymen's L. Inc.	4	9,500	1	3.90	12.80
Mierkes D. Co.	Own	14	9,500	3	3.65	12.35
Seeng, Emil	Model Dairy	8	9,625	2	3.55	12.23
Dairymen's L.	Own	20	9,647	3	3.53	12.13
Martha, John	Windsor Farm	4	10,000	1	3.80	12.54
Otto, Edward	International M. Co.	1	10,000			
Paskowitz, Harry	Dairymen's L. Inc.	1	10,000			
Palmieri, A.	Dairymen's L. Inc.	4	10,000	2	3.80	12.61
Meyer, Wm.	Middletown M. & C. Co.	3	10,330	1	3.60	12.30
Barbiera & Nog	B. R. Waldron & Son	3	11,000			
Paskowitz, H.	Dairymen's L. Inc.	3	11,300	2	3.22	11.66
Booninadale D.	Middletown M. & C. Co.	19	12,350	3	3.73	12.35

A PASTEURIZED 30,000 BACTERIA PER C C *Continued*

DEALER	PRODUCER	No. Bact. Samples	Average Bact. Counts	No. Chem. Samples	Average Chem. Counts	Average Chem. Counts
Ludolph, Adolph ..	International M. Co.	5	12,800	2	3.50	12.11
Addeo Bros	Supreme M. & C. Co.	5	13,000	1	3.40	11.98
Simon, Sam	Supreme M. & C. Co.	14	13,125	5	3.56	12.08
Paskowitz H.	International M. Co.	4	13,750	...	...	...
W. H. Ayn	Middletown M. & C. Co.	3	14,500	1	3.90	11.86
Speizer, Herman ..	International M. Co.	5	14,600	1	3.50	12.18
Frick Bros	Orange Dairy	5	15,000	1	3.50	12.25
Bonanno, Sal	Supreme M. & C. Co.	1	15,000	1	3.70	12.20
Bonanno, Sal	Dairymen's L. Inc.	1	15,000	...	...	...
Wolf Bros	Middletown M. & C. Co.	7	16,205	2	3.60	11.71
Harrington D. Co.	B. R. Waldron & Son	14	16,810	2	3.23	11.50
Beardsley, W.	Middletown M. & C. Co.	5	18,200	3	3.63	11.97
Knorr, Philip	Supreme M. & C. Co.	7	19,415	1	3.40	12.06
Fourey, Norman	Canadatowa Farms	3	19,666	...	...	...
Klappholz, Paul	Middletown M. & C. Co.	13	19,970	6	3.60	12.10
Klatt, Louis	International M. Co.	4	20,000	...	...	...
Schultz, M. C.	Feins	1	20,000	...	...	...
Waldron & Farms ..	Own	15	20,000	3	3.50	12.30
Hanapole, M.	International M. Co.	2	20,750	...	...	...
Hamm, Samuel	Dairymen's L. Inc.	6	20,875	2	4.03	13.00
Feins F. & B.	Dairymen's L. Inc.	1	25,000	...	...	...
Cetrullo, John	Own	4	27,500	1	3.50	12.39
Becker & Son, H.	Own	7	27,833	2	3.61	12.29
Smith, M.	Dairymen's L. Inc.	1	30,000	...	...	...
Reuter, Paul	Feins	2	35,000	...	...	...
Churchello, G.	International M. Co.	4	35,500	1	3.25	11.66
Perrine Dairy	Middletown M. & C. Co.	6	35,660	1	3.5	11.50
Seelig, Chas.	Middletown M. & C. Co.	14	39,200	5	3.58	12.22
Burgholtz, F.	International M. Co.	15	44,000	3	3.55	12.21
Wilkestr, Wm.	International M. Co.	1	59,000	...	...	...
Narock, John	Supreme M. & C. Co.	2	76,500	...	...	...
Mour, John	B. R. Waldron & Son	2	76,000	...	...	...
Haley, Arthur	Chestnut Dairy	2	97,500	...	...	...
Sonntag, Frank.	International M. Co.	1	100,000	...	...	...
Samonassy, S.	International M. Co.	7	109,250	...	3.50	12.18
Tooter, Moe	Feins	6	139,416	...	...	...
Trastepel, I.	Supreme M. & C. Co.	4	200,000	1	3.60	11.93
Clark, H.	Supreme M. & C. Co. ....	...	...	1	3.40	11.75

B PASTEURIZED 50,000 BACTERIA PER C C

Essner, Isadore	Dairymen's L. Inc.	1	2,000	...	...	...
Hoffman, J. H.	Feins	1	2,000	...	...	...
Martell, L.	C. W. Vanatta	1	2,000	...	...	...
Ksielewicz, M.	Dairymen's L. Inc.	1	3,000	...	...	...
Palmisano, Ar.	C. W. Vanatta	4	3,250	2	3.60	12.15
Knorr, Wm.	Supreme M. & C. Co.	5	3,400	2	3.90	12.76

B PASTEURIZED 50,000 BACTERIA PER C C—Continued

DEALER	PRODUCER	No Bact. Samples	Average Bact Counts	No Chem Samples	Average Chem Counts	Average Chem. Analysis T. S.
B. B. B. & S. L.	Supreme M & C Co.	5	4,400	1	3.10	12.01
W. B. B. & S. L.	N. J. M. & C Co.	1	4.6	1	3.10	12.01
Luford, Adolph	International M Co	1	5,000			
Knorr, Philip	Supreme M & C Co	7	5,151	2	3.5	12.20
Cannon, George	Dairymen's L. Inc	7	5,33	1	3.90	12.58
Paskwitz, Sam	C. W. Vanatta	4	5,500	1	3.80	12.54
Smith, M.	C. W. Vanatta	2	5,500			
Fiven, P.	C. W. Vanatta	1	6,000			
Fynn, Arthur	C. W. Vanatta	2	6,000			
Krueger, Gus	International M Co	1	6.0			
Brown, A.	Supreme M & C Co	7	6,916	2	3.50	12.03
Martha, John	C. W. Vanatta	5	7,400	2	3.45	11.97
National D. P. Co	Dairymen's L. Inc	4	7,750	1	3.60	12.22
Bardeira & Nog	B. R. Waldron & Son	6	7,875	2	3.45	12.01
Carbone, Sam	C. W. Vanatta	1	8,000			
International M	Own	3	8,560			
Simon, Sam	Supreme M & C Co	14	9,275	5	3.70	12.26
Cetrullo, John	Supreme M & C Co	3	10,000	1	3.30	11.65
Chinton M Co	International M Co	3	10,000	1	3.70	12.14
Crastnopol, I.	Supreme M & C Co	3	10,000			
Newark M Co	Crastnopol, N. J.	15	10,400	3	3.96	12.68
Spankowitz, H.	Dairymen's L. Inc	4	10,500	1	3.60	12.37
Alderney Dairy	Own	11	11,000	2	3.55	12.60
Sheffield Farms	Wysx, Pa.	16	11,875	4	3.75	12.56
Hampole, Max	International M Co	2	12,500	1	3.80	12.75
Smith, C. H.	C. W. Vanatta	5	12,600	2	3.50	12.07
Borden's F. P. Co	Own	15	13,000	2	3.55	12.16
Orin, Edward	International M Co	1	13,000			
Wolf, Wm.	Slate Hill M & C Co	3	13,700	1	3.60	11.64
See, G. Chas.	Slate Hill M & C Co	14	13,751	5	3.54	12.03
Boomingdale D	Slate Hill M & C Co	18	14,900	3	3.40	11.93
Foote, Norman	Canadaigua Farms	2	15,000			
Murphy, John	B. R. Waldron & Son	1	15,000			
Lipo, John	International M Co	1	15,000			
Harrington D Co	B. R. Waldron & Son	14	15,140	2	3.32	11.97
Wolf, Bros.	Slate Hill M & C Co	7	17,250	2	3.70	11.87
Schaffer M Co	Dairymen's L. Inc.	13	17,400	3	3.70	12.29
Williams M Co	International M Co	2	17,500			
Fairfield D Co	Own	8	17,500	1	3.60	12.08
Hamm, George	Dairymen's L. Inc.	5	18,700	1	3.70	12.27
Bonanno, Sal	C. W. Vanatta	5	18,815	3	3.36	11.85
Dairymen's L.	Own	19	18,870	3	3.46	11.96
Schroeder, Carl	Supreme M & C Co	11	19,216	3	3.24	11.82
Krueger, Emil	International M Co	1	20,000			
Kappholz, Paul	Slate Hill M & C Co	3	20,473	6	3.60	12.07
Helfrich, Corn.	C. W. Vanatta	6	20,500	3	3.35	12.04

B PASTEURIZED 50,000 BACTERIA PER C. C.—Continued

DEALER	PRODUCER	No. Bact. Samples	Average Bact. Counts	No. Chem. Samples	Average Chem. Counts	Average Chem. Analysis T. S.
LaPara, Frank	Dairymen's L. Inc	4	23,000	3	3.60	12.29
Frick Bros	International M. Co.	3	23,250	—	—	—
Larney, Patrick	International M. Co.	5	24,200	2	3.85	12.38
Zimmerman, Robt.	J. C. Wyckoff	6	24,375	1	3.50	12.83
Dolan, Michael	International M. Co.	4	25,000	2	3.70	12.59
Perrine Dairy	State Hill M. & C. Co.	6	26,330	1	3.30	11.36
Chapel, G.	International M. Co.	4	27,000	1	3.60	12.08
Miller, Wm.	State Hill M. & C. Co.	3	29,330	1	3.70	12.34
Beardsley, W.	State Hill M. & C. Co.	5	30,000	3	3.80	12.24
Addeo Bros.	Supreme M. & C. Co.	5	31,000	1	3.40	11.62
Murrello, Frank	International M. Co.	7	33,125	2	3.80	12.57
Bower, Christ	Supreme M. & C. Co.	1	35,000	—	—	—
Thiele, Philip	Clinton M. Co.	6	39,166	2	3.80	12.97
Schack, E.	Three Bridges, N. J.	2	40,000	1	3.20	11.67
Paskowitz, H.	C. W. Vanatta	8	40,250	1	3.40	12.66
Nadler, Moe	J. Halprin	3	41,000	1	3.70	12.34
Garb, John	C. W. Vanatta	6	55,000	1	3.30	11.86
Bobrow, A.	Three Bridges, N. J.	6	57,000	2	3.27	11.72
Clinton M. Co.	Own	12	57,000	3	3.73	12.70
Forgione, T.	International M. Co.	7	60,208	2	3.75	12.47
Selig, Emil	N. J. M. & C. Co.	12	60,425	3	3.13	11.58
Burgholz, Frank	International M. Co.	15	61,000	3	3.75	12.35
Serag, Emil	C. W. Vanatta	8	63,455	2	3.50	12.07
Weiss, Benjamin	Three Bridges, N. J.	7	66,000	2	3.10	11.52
Smith, Carl W.	International M. Co.	3	67,330	1	4.10	12.75
Ferns, Irving	J. Halprin	4	82,500	—	—	—
Hamm, Sam	Dairymen's L. Inc	6	93,330	2	3.65	12.16
Ferns, Herman	J. C. Wyckoff	5	100,000	—	—	—
Brow, A.	Supreme M. & C. Co.	1	100,000	1	3.60	12.01
Crasnopol, I.	Supreme M. & C. Co.	2	107,000	1	3.90	12.22
Greenberg, Abe	N. J. M. & C. Co.	4	107,500	2	3.10	11.50
Smith, Thos. E.	Three Bridges, N. J.	4	111,330	2	3.50	12.25
Katt, Louis	International M. Co.	6	114,100	3	3.66	12.37
Masno, Nick	Dairymen's L. Inc	6	132,500	3	3.53	12.25
Berry, James	C. W. Vanatta	4	187,000	1	3.50	11.74
Nardler, James	N. J. M. & C.	9	197,750	2	*2.86	*11.14
Smorogov, S.	International M. Co.	7	233,000	1	3.40	11.91
LaBella, Leonar	Dairymen's L. Inc	4	253,750	1	3.90	12.51
Kozak, George	J. Halprin	6	288,625	2	3.60	12.00
Harro, Norman	J. Halprin	4	260,000	—	—	—
Dobrosky, M.	Three Bridges	3	376,667	—	—	—
Kerner, Wm. J.	C. W. Vanatta	8	377,150	2	3.85	12.52
Allen, Aaron	C. W. Vanatta	7	406,625	2	3.75	12.23
Klein, Jacob	C. W. Vanatta	5	524,000	2	3.35	11.78
Hanopole, Max	—	—	—	1	3.20	11.53
Carr, H.	Supreme M. & C. Co.	—	—	1	3.30	11.57

* Below legal standard.

BUREAU OF VETERINARY MEAT INSPECTION

Dr. Charles V. Craster, Health Officer.

Dear Sir:

Herewith I submit the report of the Veterinary Bureau for the year ending December 31, 1928.

Respectfully,

WERNER RUNGE,
Chief Veterinarian.

The object of veterinary meat inspection is to protect the health of the people at large by preventing the purchase or issue of meats which are unsafe for food purposes.

This protection is accomplished by repeated inspections, such as ante mortem and post-mortem examination, the supervision of the refrigerators where meats and meat products are kept and again at the licensed retail meat markets.

There are about 16 car loads of live poultry entering Newark weekly, each car containing about 3,500 head of poultry, with an average of 17,000 pounds per car.

An inspector is present during the unloading process who destroys all sick animals and has them removed to a rendering plant.

Commission, cold storage, slaughter house and Centre Market inspected daily.

Meats and meat products used at public institutions, City Hospital, Alms House and City Home inspected and passed before acceptance.

Cattle inspected and passed at abattoirs ..	9,783
Calves inspected and passed at abattoirs ..	29,188
Sheep inspected and passed at abattoirs ..	34,138
Calves (country dressed) inspected and passed....	15 165
Sheep (country dressed) inspected and passed ...	610
Hogs (country dressed) inspected and passed ..	1,778
Goats (country dressed) ...	533
Pounds of bologna inspected and stamped ..	587,875
Cattle reinspected ..	86,289
Calves reinspected ..	117,797
Sheep reinspected ..	313,844
Hogs reinspected ..	461
Pounds of pork reinspected ..	14,188,339
Pounds of poultry reinspected ..	14,210,150
Pounds of fish reinspected ..	2,194,000
Pounds of miscellaneous meats reinspected ..	1,578,000
Butcher shops inspected and reinspected ..	19,143
Public and private slaughter houses inspected and reinspected ..	1,389
Railroad cars containing live poultry inspected ..	818
Complaints investigated ..	45
Beef carcasses condemned ..	22¼
Calf carcasses condemned ..	262
Sheep carcasses condemned ..	66
Hog carcasses condemned ..	2
Goat carcasses condemned ..	16
Parts of carcasses condemned ..	1,440

CONDEMNED

33,477 lbs. chickens.	50 lbs. bacon.
3,872 lbs. turkeys.	60 ox tails.
280 lbs. ducks.	20 beef hearts.
643 lbs. geese.	65 pork rolls and 87 lbs. pork roll.
695 lbs. beef.	125 lbs. reindeer meat.
383 lbs. veal.	1,884 lbs. miscellaneous meats.
562 lbs. lamb.	1,399 lbs fish
1,155 lbs. pork.	5½ barrels and 480 rabbits.
4 hindsaddles and 1 forequar ter veal.	11 cooked lobsters
30 hindquarters and 3 legs lamb.	1 barrel crabs.
2 barrels corned beef.	4 boxes and 28 grapefruit.
101 smoked hams.	30 baskets spinach.
15 boxes spare ribs.	32 quarts strawberries.
80 lbs bologna.	40 baskets mushrooms.
50 lbs liver.	30 baskets string beans
30 lbs. tripe.	29 baskets lima beans.
	91 bunches asparagus.

ANNUAL REPORT

OF THE

Chemist

ANNUAL REPORT
OF THE
Chemist

Dr. Charles V. Craster, Health Officer.

Dear Sir:

I herewith submit my annual report as Chemist for the year ending December 31, 1928.

Respectfully,

HALSEY DURAND,
Chemist.

The total number of analyses for 1928 shows an increase of 526 over 1927, the increase being due to the increased number of milk, cream, ice cream and miscellaneous samples received.

The monthly samples taken from different sections of the city water supply have been regularly analyzed and show the Newark water to be maintaining its high standard of purity.

The work of the Chemical Laboratory for the year is as follows:

Total number of analyses..... 6,336
Divided as follows:

Milk

Total number of milks analyzed	5,224
Total number of sealed milks analyzed	5,130
Total number of unsealed milks analyzed.....	94
Total number of sealed milks below standard.....	53
Total number of unsealed milks below standard.....	0
Per cent sealed milks below standard	1.03
Per cent unsealed milks below standard.....	0.00
Sealed milk samples broken in transit by inspectors	4

**AVERAGE OF TOTAL SOLIDS AND FAT IN SAMPLES TAKEN IN
1927 AND 1928**

	Total Solids		Fats	
	1927	1928	1927	1928
Total above standard. ..	12.38%	12.35%	3.71%	3.66%
Total below standard..	10.86%	11.14%	2.21%	2.86%
Total above and below standard	12.35%	12.34%	3.69%	3.66%

NOTE Since the inauguration of the new system, discontinuing the taking of preliminary or unsealed routine milk samples, February 3, 1926, the only unsealed samples now taken are those from the City Hospital supply and a few special samples.

Certified Milks

Thirteen sealed samples of certified milk were analyzed. Nine were above and four below standard of fat.

City Hospital Milk Supply

Samples from the City Hospital milk supply were analyzed twice a month. Five samples were taken from the milk delivered twice a month up to August 15th. After this date a composite sample from five cans was taken twice a month. Eighty-four samples were analyzed and found to be of good quality, the average for the year for total solids being 12.55% and for the fat 3.75%.

Special Milks

Thirty one samples were analyzed, 17 sealed and 14 unsealed. Of these, 12 samples were ordinary milks, 4 sealed and 8 unsealed. Five samples, 4 sealed and 1 unsealed, were analyzed for fat content and foreign fats and were above standard and free from foreign fats. Of the remaining 7 unsealed samples, 2 were examined for adulteration and unclean bottles. One bottle contained dried earth, but both samples were above standard in solids and fat. Two for fat content and preservatives, both being unadulterated. One for colostrum and 2 for foreign substances, alleged to have caused curdling, gave negative results.

Included under this heading are 14 samples of condensed milk, 11 sealed and 3 unsealed. Of 9 sealed and 3 unsealed samples examined, 2 sealed and 2 unsealed were below standard of fat. Two sealed skimmed condensed milks and 1 unsealed mixture of milk and condensed milk were also below standard of fat.

Three buttermilks, 2 sealed from inspectors and 1 unsealed from the City Hospital, were found to be pure.

One unsealed cultured milk was analyzed for total solids and fat and found to be above standard.

An unsealed sample of human milk from the Baby Hospital was also examined.

Cream

A total of 526 samples of cream, a majority of which were sour, were analyzed for fat content. Five hundred fifteen were sealed and 11 were unsealed samples. Thirty eight of the sealed and 2 of the unsealed samples were below the standard of fat (16 per cent). Among these was 1 special sealed sample for fat and thickeners, which was unadulterated.

Ten samples, 9 sealed and 1 unsealed, in addition to examination for fat content, were analyzed for foreign fats and found to be unadulterated.

In addition to the above cream samples, 6 sealed samples of Creammix (a mixture of cream and milk), were analyzed for fat and foreign fats. The fats varied from 11.00% to 18.00%. Five of the samples showed no foreign fats and 1 was not completed owing to loss during analysis.

Ice Cream

Two hundred eighty samples of ice cream were analyzed for fat content, 271 sealed and 9 unsealed. Of the 271 sealed samples, 233 were above and 38 were below the standard of fat (8%). Five unsealed samples were above and 4 below standard.

Of the above total, 1 special sealed sample was analyzed for foreign fats with negative results, but the fat content was below standard.

In addition to the above, 1 special sealed sample was examined for artificial color (coal tar). A coal tar color was found to be present.

Water

One hundred thirteen samples were analyzed.

Of these, 108 were the regular monthly samples of the city water supply taken at various points in the water supply system. Tables giving a summary of the results are given below.

In addition to the monthly samples, 5 samples were analyzed, as follows: 3 samples taken by Department inspectors from plants located in the city. Of these, 2 were driven wells for sanitary analysis and 1 from a flush tank. The latter

sample contained a gelatinous substance, which was found to be caused by microorganisms. These organisms had no pathogenic properties and were important only through mechanical interference with the water system. *

Two samples were received from Boy Scout Camp Mohican, near Blairstown, N. J.

Miscellaneous

One hundred sixty miscellaneous samples were analyzed, covering a comparatively wide range of work.

Among these were butter and cheese for conformity to standard, presence of foreign fats and injurious ingredients, broken glass and sand. Beverages (soda water) for saccharin and character of sediment in bottles. Sugar, tinned fish and meat damaged by fire and other causes, for fitness for human consumption. Grape juice and noodles for artificial color. Olive oil for adulteration with cottonseed and other oils. Bread and cake for molds. Foods for bacterial poisons and other injurious ingredients. Coffee and malt substitutes for fitness for human consumption. Toilet articles for injurious ingredients. Honey for purity. Soaps, olive oil and other varieties, for conformity to the U. S. P. requirements. Water content and free caustic alkali. Citrate of magnesia solution for conformity to the U. S. P. requirements. Samples of alcoholic liquors used in the City Hospital, for proof and methyl alcohol. Also samples of urine and feces from patients in the City Hospital, for confirmation of diagnosis, for lead poisoning.

ANALYSES OF NEWARK AQUEDUCT WATER

Samples from Oak Ridge Stream before Junction with Clinton Stream at New Foundland, N. J.
Parts per Million

1928	Temperature degrees Fahr.	Turbidity	Color	NITROGEN AS				Chlorine	Temporary Hardness	Total Solids	Loss on Ignition	Fixed Mineral Matter
				Free Ammonia	Albuminoid Ammonia	Ni- trates	Ni- trates					
January	30	7	22	002	.115	0	.125	3.50	22.1	63	25	38
February	28	2	17	005	.070	0	.075	3.50	28.6	44	12	32
March	32	3	25	005	.080	v f t	.075	3.00	26.0	56	73	33
April	38	2	24	005	.114	0	.063	2.50	17.3	43	0	44
May	50	4	22	007	.099	v f t	.125	3.25	28.6	60	22	38
June	70	4	22	002	.089	v f t	.113	2.00	29.9	65	18	47
July	54	3	23	007	.068	.001	.063	2.50	37.7	77	32	45
August	67	3	26	002	.106	f t	.048	2.25	36.4	62	14	48
September	50	5	30	002	.087	f t	.063	3.00	35.1	66	25	41
October	56	4	22	002	.104	0	.088	2.50	36.4	71	28	43
November	42	3	20	003	.110	0	.063	2.00	37.7	53	10	43
December	32	3	22	002	.128	0	.100	3.00	39.0	51	12	39

ANALYSES OF NEWARK AQUEDUCT WATER

Samples from Clinton Stream before Junction with Oak Ridge Stream at New Foundland, N. J.
Parts per Million

1928	Temperature Centres Fah.	Turbidity	NITROGEN AS					Chlorine	Temporary Hardness	Total Solids	Loss on Ignition	Fixed Mineral Matter
			Color	Free Ammonia	Albuminoid Ammonia	Nitrites	Nitrates					
January	30	5	25	003	099	v f t	138	3 00	22 4	60	22	38
February	28	1	20	004	082	0	045	3 00	19 5	51	18	35
March	32	2	19	004	074	f t	050	3 00	19 5	63	19	44
April	40	2	20	005	085	0	063	2 25	15 6	61	42	19
May	52	3	32	005	060	v f t	088	3 00	20 8	57	21	36
June	72	3	15	004	062	0	063	2 50	20 8	75	15	60
July	50	4	15	005	059	0	050	3 00	19 5	50	24	26
August	69	2	17	007	065	0	043	2 25	16 9	40	10	30
September	48	3	27	002	063	0	100	3 25	18 2	39	21	18
October	48	3	25	004	081	0	113	3 00	16 9	50	23	27
November	40	2	22	003	102	0	028	2 25	19 5	33	4	29
December	32	2	20	002	103	0	075	3 00	18 2	19	4	15

ANALYSES OF NEWARK AQUEDUCT WATER
Samples from Laboratory Faucet, 68 Camden Street, Newark, N. J.
Parts per Million

1908	Tem- perature Fahrenheit	Turbidity	Color	NITROGEN AS				Chlorine	Temporary Hardness	Total Solids	Loss on Ignition	Fixed Mineral Matter
				Free Ammonia	Albuminoid Ammonia	Ni- trates	Ni- trates					
January	39	2	17	002	057	0	113	4.00	27.3	42	20	22
February	40	2	15	003	060	0	063	4.00	20.8	48	17	31
March	47	2	20	007	074	v f. l.	050	4.00	22.1	69	13	56
April	53	2	20	002	068	0	075	3.75	22.1	66	22	44
May	62	4	21	003	068	v f. l.	045	3.25	23.4	56	18	38
June	70	4	25	001	085	0	063	3.25	23.4	55	21	34
July	77	4	32	001	086	0	063	2.75	21.3	57	28	29
August	74	3	38	004	103	0	088	3.00	22.1	63	23	10
September	64	3	30	002	062	0	033	4.00	29.9	88	46	42
October	64	4	28	003	077	0	033	3.75	33.8	72	21	51
November	46	4	20	003	073	0	035	3.50	36.4	47	9	38
December	41	2	15	002	048	0	050	3.75	32.5	50	14	36

ANALYSES OF NEWARK AQUEDUCT WATER

Averages of Monthly Samples Parts per Million

		Tem- perature water in Fahr	Turbidity	Color	NITROGEN AS				Chlorine	Temporary Hard- ness	Total Solids	Loss on Igni- tion	Fixed Mineral Matter
					Free Ammonia	Albuminoid Ammonia	Ni- trates	Ni- trates					
Oak Ridge Sta	1	46	4	23	.004	.098	tr.	.083	2.5	32.1	60	20	40
Cedar Grove	2	46	5	22	.004	.078	0	.072	2.84	19.0	50	19	31
Kearney Sta	3	45	5	19	.004	.113	0	.082	3.05	21.4	52	10	35
Elm Park Sta	4	46	4	41	.010	.137	0	.077	2.53	26.3	63	25	38
Madison Park	5	50	3	33	.015	.092	0	.050	2.63	29.3	64	21	43
Cedar Grove	6	52	4	29	.006	.084	0	.055	3.48	28.2	61	22	39
Cedar Grove	7	52	6	26	.007	.082	tr.	.046	3.48	28.2	53	20	33
Beverly	8	54	4	25	.004	.078	0	.054	3.59	30.1	66	23	43
Lafayette	9	57	3	24	.003	.072	0	.060	3.59	26.8	60	21	39

ANALYSES OF NEWARK AQUEDUCT WATER
Monthly Average of All Samples
Parts per Million

1928	Temperature degrees Fahr.	Turbidity	Color	NITROGEN AS				Calcium	Temporary Hardness	Total Solids	Loss on Ignition	Fixed Mineral Matter
				Free Ammonia	Albuminoid Ammonia	Ni- trates	Ni- trates					
January	32	4	19	002	082	v f t	089	3 58	23 8	53	18	35
February	32	2	20	005	078	0	057	3 39	24 0	56	18	38
March	37	3	26	008	083	v f t	056	3 33	23 4	63	18	45
April	46	3	30	004	095	0	064	2 83	20 9	60	26	34
May	58	5	32	005	101	0	087	2 92	25 9	59	23	36
June	75	5	30	005	102	0	077	2 58	25 3	69	23	46
July	63	4	36	009	104	f t	064	2 42	27 0	64	29	35
August	70	4	38	015	110	tr.	060	3 08	24 0	58	21	37
September	54	4	38	006	081	0	055	3 47	28 9	59	26	33
October	52	4	31	005	101	0	055	3 78	32 8	67	28	39
November	40	3	25	003	092	0	035	3 00	33 9	46	9	37
December	35	4	22	003	073	0	065	3 50	31 3	45	12	33
For Year 1928	50	4	29	007	092	0	064	3 16	26 8	59	21	38

TABLE OF MAXIMUM, MINIMUM AND AVERAGE
TOTAL SOLIDS IN WATER FROM LABORATORY
FAUCET, FROM 1900 TO DATE

TOTAL SOLIDS, GRAINS PER U. S. GALLON

Date	Maximum	Minimum	Average
1900	2.06	1.96	2.53
1901	3.00	1.93	2.68
1902	2.92	1.98	2.45
1903	2.92	1.69	2.32
1904	2.92	2.04	2.52
1905	2.92	1.60	2.33
1906	3.24	2.44	2.71
1907	3.09	2.35	2.60
1908	2.92	2.22	2.66
1909	3.37	2.23	2.78
1910	3.50	2.16	2.81
1911	3.91	2.63	3.06
1912	3.32	1.92	2.94
1913	3.91	2.16	3.04
1914	3.49	2.27	2.88
1915	3.90	1.92	2.99
1916	3.55	2.56	2.98
1917	3.84	2.39	3.11
1918	4.19	1.40	3.02
1919	3.78	2.74	3.32
1920	3.44	2.62	3.05
1921	3.65	2.84	3.07
1922	3.50	2.10	2.91
1923	3.50	2.52	2.92
1924	2.68	2.04	2.42
1925	4.39	2.87	3.39
1926	4.26	2.81	3.39
1927	4.18	2.73	3.43
1928	5.10	2.44	3.48

NOTE In 1924 only four months included, January, February, March and December

ANNUAL REPORT

OF THE

Division of Bacteriology

ANNUAL REPORT
OF THE
Division of Bacteriology

Charles V. Craster, M. D., Health Officer.

Dear Doctor:

Herewith is submitted the report of the Division of Bacteriology for the year ending December 31, 1928.

Respectfully,

R. N. CONNOLLY, M. D.,
Bacteriologist.

During the year 1928 the examination of cultures from suspected cases of diphtheria and cultures from contacts formed a very prominent part of the routine work of the laboratory. These showed an increase of over 25% as compared with the previous year.

The number of positive cases of the disease discovered by culture was greater by almost 100% than in 1927.

The production of diphtheria antitoxin exceeded the previous year by 1,738 doses and the demand for the serum prepared by the Department taxed the capacity of the antitoxin plant. The supply, however, was equal to the demand and the product was of higher potency than the general average of previous years.

New equipment was installed in the laboratory for the production of Diphtheria Toxin Antitoxin Mixture, for the con-

centration of antitoxin and the preparation of tetanus anti-toxin. The difficulty of assembling the necessary apparatus and the preparation of the horses was more time consuming than we could anticipate, but, at the present time the equipment is complete and the tetanus antitoxin horses are well under way toward immunization, therefore, the city has now acquired a plant which is capable of providing for the needs of our community, in this line, for some years to come.

The following tables present in detail the routine work of this Division as far as is possible without giving unnecessary descriptions of the various activities:

ROUTINE ACTIVITIES OF THE BACTERIOLOGICAL DIVISION

	Total for 1928	Total for 1927
Diphtheria—		
Cultures for Diagnosis	20,692	14,332
True Cases	905	464
Diagnosis and Release.....	22,816	15,517
Tuberculosis Sputum -		
Positive	217	237
Negative	1,090	1,231
Vincent's Angina Throat Smear -		
Positive	97	59
Negative	164	151
Gonorrhoea—		
Positive	1,376	970
Negative	4,097	3,402
Typhoid—		
Widal Positive	12	43
Widal Negative	478	617
Stool Positive	1	1
Stool Negative	56	62
Urine Positive	1	1
Urine Negative	45	74
Vaccine Doses Distributed	580	620

DEPARTMENT OF HEALTH

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	Total for 1928	Total for 1927
Water—		
Pequannock Supply	308	287
Wells, Cisterns, etc	35	32
Swimming Pools	293	236
Wading Pools	1	1
Ice	8	8
Milk—		
City Supply . ..	1,680	1,909
City Hospital Supply.	249	230
Special Examination and Cream .	79	360
Rabies—		
Brain Tissue of Dogs, Cats, etc.....	53	87
Positive	20	35
Negative	33	52
Pasteur Treatment—		
Cases Begun	8	29
Cases Finished	7	27
Shell Fish—		
Oysters	201	287
Clams	3	61
Diphtheria Antitoxin—		
Doses produced during the year	3,889	2,151
Doses distributed during the year	3,704	2,402
Vaccine, Etc.—		
Pertussis vaccine; doses distributed . .	1,257	1,952
Tuberculin (diagnostic); doses distributed	10	2
Tuberculin for treatment; doses distributed .	10	1

NEWARK CITY WATER

Pequannock Supply

Bacteriological examination of samples from the various sampling points at the watershed, from the reservoirs and from the faucets in Newark gave the results shown in the following table:

Oak Ridge Stream above Clinton Stream—

Number of tests during 1928	24
Maximum number of bacteria per C. C	2 000
Minimum number of bacteria per C. C	50
Average number of bacteria per C. C	332

Clinton Stream above Oak Ridge Stream—

Number of tests during 1928	24
Maximum number of bacteria per C. C	1,100
Minimum number of bacteria per C. C	40
Average number of bacteria per C. C	381

Kanouse Brook above Pequannock River—

Number of tests during 1928	23
Maximum number of bacteria per C. C	3,800
Minimum number of bacteria per C. C	70
Average number of bacteria per C. C	969

Echo Lake Stream above Pequannock River—

Number of tests during 1928	24
Maximum number of bacteria per C. C	6 000
Minimum number of bacteria per C. C	50
Average number of bacteria per C. C	816

Macopin Intake inside Gatehouse—

Number of tests during 1928	23
Maximum number of bacteria per C. C	3 500
Minimum number of bacteria per C. C	30
Average number of bacteria per C. C	653

Cedar Grove Reservoir outside Inlet Gatehouse—

Number of tests during 1928	24
Maximum number of bacteria per C. C	1,400
Minimum number of bacteria per C. C	20
Average number of bacteria per C. C	176

Cedar Grove Reservoir outside Outlet Gatehouse—

Number of tests during 1928.....	24
Maximum number of bacteria per C. C.....	900
Minimum number of bacteria per C. C.....	20
Average number of bacteria per C. C.....	211

Belleville Reservoir inside Inlet Gatehouse—

Number of tests during 1928.....	23
Maximum number of bacteria per C. C.....	800
Minimum number of bacteria per C. C.....	30
Average number of bacteria per C. C.....	394

Belleville Reservoir outside Outlet Gatehouse—

Number of tests during 1928.....	24
Maximum number of bacteria per C. C.....	1,200
Minimum number of bacteria per C. C.....	30
Average number of bacteria per C. C.....	344

Department of Public Health Office Faucet—

Number of tests during 1928.....	24
Maximum number of bacteria per C. C.....	280
Minimum number of bacteria per C. C.....	20
Average number of bacteria per C. C.....	52

Laboratory Faucet, City Hospital—

Number of tests during 1928.....	58
Maximum number of bacteria per C. C.....	170
Minimum number of bacteria per C. C.....	10
Average number of bacteria per C. C.....	41

BACTERIOLOGICAL EXAMINATION OF PUBLIC AND SEMI-PUBLIC BATHS, SHOWING NUMBER OF BACTERIA PER C. C. IN THE WATER

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DEPARTMENT OF PUBLIC WORKS

Date—1928	Hill Bath 188 Broome St.		Charlton Bath 36 Charlton St.		Howard Bath 141 Howard St.		Mercer Bath 52 Mercer St.	Huber Bath 10 W. Park St.
	Pool	Mixveh	Pool	Mixveh	Pool	Mixveh	Pool	Pool
January 5	0	10			10			500
January 19		0	10	60	10			1,500
February 2			10	10			1,500	3,000
February 16			10	0	10			
March 8			30	0	10		0	
March 22			10	30			0	5,000
April 5			0	10	5,000		5	
April 19			70					
May 3			350	10			0	
May 17			30				10	2,000
June 7			0	10,000			0	3,000
June 21			0	10			12,000	15,000
July 19			0	0			0	
August 2			283,500	0			0	700
August 22			0	12,500			100,000	100
September 6			0	20			10	5,000
September 20			0	0	10		10	20
October 4			0	10	40		10	10
October 18		0	10	20	120		10	30,000
November 1			10	0	130		10	100
November 22			0	0	10		0	10
December 6			500,000	10	20		0	0
December 20			12,000	10	750		0	0
Number of Tests	1	2	22	20	12	0	19	17
Average Bact. per c.c.	0	5	36,183	1,135	510	0	6,082	3,878

PUBLIC AND SEMI-PUBLIC BATHS—Continued

DEPARTMENT OF HEALTH

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1928	Y M C A 107 Haasey St	Y W C A 53 Washington St	Temple Brass Altr 826 S. 10th St	C. B. Paterson St	Y M & Y W H A High & Kinney Sts	Newark A. C. Park Place
	Pool	Pool	Pool	Pool	Pool	Pool
January 5	30	10	0	20	40	0
January 19	0	2,500	0	1,600	30	0
February 2	0	9,000	0	0	0	0
February 16	0	5,000	0	50	20	10
March 8	0	500,000	0	10	0	30
March 22	0	3,500	0	10	0	0
April 5	10	25,000	0	1,500	0	0
April 19	100	15,000	10	0	20	170
May 3	0	3,000	0	100	0	10
May 17	0	5,500	0	2,500	400	20
June 7	0	150,000	0	10	10	3,500
June 21	10	400,000	0	300	10	5,000
July 19	15,000	50,000	0	5,000	10	0
August 5	0	8	0	12,600	0	0
August 22	10	30,000	0	50,000	0	0
September 6	10	20	10	10	10	0
September 20	20,000	1,500	0	20	10	1,000
October 4	30	1,600	0	280,000	0	10
October 18	60,000	500,000	0	3,000	10	0
November 1	200	10	0	60	10	0
November 22	0	5,000	0	0	0	0
December 6	0	0	0	5,000	100	0
December 20	0	0	0	0	0	0
Number of Tests	22	23	13	21	15	18
Average Bact. per c.c.	4,336	74,202	2	17,229	46	542

PUBLIC AND SEMI-PUBLIC BATHS—Continued

1928	B. P. C. F. Baths	Robert Treat Bath 22 Howard St.	Dreamland Park Brenglehuysen Ave.	Metz Ave City Bath.	City Water Laboratory	Weequahic Park
	Pool	Pool	Pool	Pool	Faucet	Pool
January 5	0	20	-----	1,200	20	
January 19	50	-----	-----	500	30	
February 2	-----	10	-----	500	30	
February 16	0	0	-----	0	30	
March 8	250	10	-----	300	40	
March 22	0	0	-----	0	30	
April 5	10	0	-----	750	20	
April 19	20	20	-----	1,500	20	
May 3	10	10	-----	-----	20	
May 17	-----	0	-----	-----	20	
June 7	0	50,000	200	700	30	
June 7	-----	-----	40	-----	-----	
June 21	0	40	10	5,000	30	
July 10	-----	-----	1,500	500	30	
July 19	-----	-----	600	-----	-----	
August 5	-----	0	2	20	40	400
August 5	-----	-----	0	-----	-----	
August 22	10	-----	7,000	50	170	
August 22	-----	-----	500	-----	-----	
September 6	0	0	-----	3,000	70	
September 20	10	-----	-----	300	30	
October 4	-----	10	-----	3,000	40	
October 18	-----	20	-----	300	40	
November 1	-----	0	-----	100,000	40	
November 22	-----	0	-----	1,200	40	
December 6	0	-----	-----	4,000	50	
December 20	-----	20,000	-----	25,000	50	
Number of Tests	14	18	9	21	23	1
Average Temperature	25	50.00	100.0	0.50	10	100

BACTERIOLOGICAL EXAMINATION OF SHELL FISH

Total number of samples of oysters examined during the year was 201, representing 1,005 individual specimens.

The number of samples showing a colon-index of 50 or lower	180
The number of samples showing a colon-index of over 50.	21

The total number of samples of clams examined during the year was 3, representing 15 individual specimens

The number of samples showing a colon index of 50 or lower	3
The number of samples showing a colon index of over 50	0

CITY MILK SUPPLY

The milk supply of the city received the usual supervision of this Division during the year and the results of the bacteriological tests of the samples are grouped in the following table:

Certified Milk 81 samples tested, of which 97.60% were acceptable under the milk ordinance, as compared with 94.6% in 1927

Grade A Raw—388 samples tested, of which 76.29% were acceptable under the milk ordinance, as compared with 83.30% in 1927

Grade A Pasteurized 547 samples tested, of which 87.75% were acceptable under the milk ordinance as compared with 86.01% in 1927

Grade B Pasteurized 403 samples tested, of which 84.41% were acceptable under the milk ordinance, as compared with 79.01% in 1927

City Hospital Supply—247 samples tested.

Examinations for Streptococci 551 In 75 of these streptococci and pus were found, all of which were samples of Grade A Raw milk

Cream examinations—72.

Total number of examinations—2,968.

ANNUAL REPORT
OF THE
Serological Laboratory

ANNUAL REPORT
OF THE
Serological Laboratory

To Charles V. Craster, M. D., Health Officer.

Dear Dr. Craster:

Herewith is submitted the report of the work performed in the Serological Laboratory for the year ending December 31, 1928.

Respectfully submitted,

HARRISON S. MARTLAND, M. D.,
Pathologist.

The work of the Serological Laboratory during the year has been very heavy, the total number of examinations being 29,084, which far exceeds that of any other year since the establishment of the laboratory.

During the year 22 342 Wassermann tests were made for the detection of syphilis. It is interesting to note that the test is still used by physicians more as a diagnostic exclusion test in general medicine and surgery than for the diagnosis of frank active syphilis. Active syphilis is usually easily diagnosed clinically, but the presence of old and latent syphilis is often difficult to recognize, and the chief value of the Wassermann test is to exclude syphilis as an etiological factor in general medicine and surgery.

Wassermann tests are made on every Tuesday, Wednesday, Thursday and Friday. Blood tests received in the lab-

oratory before 12.00 M. are reported on the following day. The Kolmer standardized technic using cholesterol antigen with eighteen hours' icebox fixation is used. The results we feel warrant the extra time and more elaborate technic required to perform this test than the simpler modifications.

On account of the great amount of work and limited expert help, it has been impossible to perform some of the newer precipitation tests, such as the reactions described by Memicke, Sachs and Klopstock, Dold, Miller and Kahn. The International Serological Conference at Copenhagen last year conceded beyond a doubt that these newer methods were more sensitive than the old ones in the detection of syphilis, and at the same time were at least as specific. While the newer precipitation and flocculation methods, on account of their sensitiveness, are of the highest value in detecting cases of syphilis, nevertheless it has not yet been proven whether they are not perhaps too strong to be a good guide during treatment. We are opposed, therefore, to giving up the very painstaking Kolmer Standard Wassermann Technic. Both old and new methods should be used together. This we hope to accomplish during the coming year.

The large experience this laboratory has had with the Wassermann test firmly convinces us that such an important diagnostic test should only be performed in laboratories under city or State control, which are thoroughly equipped to handle the work and are constantly performing a large number of tests.

Furthermore, the close liaison between the wards and clinics of the City Hospital, City Dispensary and the laboratories allows us to have a very important clinical check on the results of a large number of the Wassermann reactions, a very important factor in the proper performance of the Wassermann test.

NUMERICAL SUMMARY OF LABORATORY WORK PERFORMED IN THE SEROLOGICAL LABORA- TORY AT THE CITY HOSPITAL DURING 1928

	Separate Items	Total
Wassermann Tests:		
Blood Wassermanns	21,890	
Positive	2,433	
Spinal Fluid Wassermanns	452	
Positive	52	
	—	22,342
Source of Wassermann Tests:		
Physicians and Hospitals of Newark	12,468	
City Hospital	5,915	
City Dispensary	3,959	
How Wassermann Test was used:		
As diagnostic and therapeutic aid in the first two years of syphilis	348	
As diagnostic and therapeutic aid in old and latent syphilis	639	
As diagnostic aid in general surgery and medicine	21,355	
Examination of Venereal Sores:		
Darkfield examinations	250	
(Including stained smears and aspiration of regional glands)		
Positive	76	
	—	250
Examination for Gonococcus:		
Smears for gonococci	5,750	
(City Hospital only)		
Positive	268	
	—	5,750
Examination of Spinal Fluid:		
Routine Serological examinations	742	
(Including cell count, globulin, gold sol and bacteriological examination)		
	—	742
Grand Total.....		29,084

CULTURE COLLECTORS

Following is a summary of the work performed by the three culture collectors attached to the Bacteriological Laboratory, whose duty is to supply the culture stations with antitoxin and outfits for taking diphtheria cultures, sputa Wassermanns, typhoid and other blood tests, collect daily all such outfits used and left at the stations by the doctors and delivered to the laboratory, with figures for past five years

	1928	1927	1926	1925	1924
Antitoxin delivered	3,162	2,000	1,581	1,919	2,258

Outfits Delivered—

Cultures	16,405	14,590	11,622	11,086	11,365
Sputa	1,787	2,446	2,873	3,538	3,512
Typhoid	401	840	683	1,269	1,019
Wassermanns	10,850	11,751	8,255	9,525	8,954
Catarrhal	4,905	4,644	3,943	4,767	4,515

Outfits Collected -

Cultures	14,877	10,937	15,881	16,138	14,720
Sputa	1,218	1,468	1,607	1,828	1,974
Typhoid	320	406	296	425	356
Wassermanns	8,491	10,160	7,688	7,291	7,203
Catarrhal	3,714	3,370	2,463	2,742	2,731

ANTITOXIN AND CULTURE STATIONS BY WARDS

Ward	Station	Address	Telephone No.
First	A R Bianchi	Seventh Ave. & Sheffield St	Br Brook 8919
First	N Spal one	72 Park Avenue	Br Brook 6822
First	Vernon's Pharmacy	Broadway	Br Brook 9554
First	2nd Precinct Police Station	Summer & Seventh Aves	Market 5400
First	H Sternberg .	Clay & Broad Sts	Br Brook 1860
Second . . .	St Michael's Hospital	Central Ave & High St	Market 7610
Second	City Dispensary	Plane & William Sts	Mitchell 3310
Second	1st Precinct Police Station . . .	Court & Washington Sts	Market 5400
Second ..	Washington Pharmacy	Washington & William Sts	Mulberry 3769
Second	Medical Tower	Lincoln Park	Mitchell 9185
Second	Petty's	833 Broad St	Market 7047
Third	St Barnabas' Hospital	681 High St	Market 6616
Third	L. McEvoy	58 Springfield Ave	Market 4633
Third	R. M. Laird	194 Canton Ave	Bigelow 2150
Third	Mendelsohn, M D	178 Spruce St	Bigelow 5756
Fourth	Firemen's Pharmacy	Broad & Market Sts	Market 5516
Fourth	Dr. W. P. Fagleton	15 Lombardy St	Mulberry 0769
Fifth	J. M. Greenfield	201 Walnut St	Market 3908
Fifth	Eckert Pharmacy..	167 Ferry St	Market 3392
Fifth	Girtaner's Pharmacy	21 Ferry St	Market 1764
Sixth	J. P. Smith	315 South Orange Ave.	Mulberry 1514
Sixth	J. Battiato	169 South Orange Ave.	Market 1539
Sixth	A Del Pomo	232 South Orange Ave.	Market 7052

ANTITOXIN AND CULTURE STATIONS BY WARDS—Continued

Ward	Station	Address	Telephone No.
Sixth	City Hospital	116 Fairmount Ave.	Market 9300
Seventh	P. J. Corrigan	25 Wallace Place	Market 3205
Seventh	Cosmopolitan Drug Store, Inc.	279 Bank Street	Market 0440
Eighth	Oriental Pharmacy	289 Broadway	Br. Brook 8694
Eighth	H. J. Quin	187 Bloomfield Ave.	Hamboldt 1052
Eighth	Resnick's Pharmacy	449 Summer Ave.	Br. Brook 7234
Eighth	L. Arnold	684 Mt. Prospect Ave.	Br. Brook 4134
Eighth	8th Precinct Police Station	Broadway & Grafton Ave.	Market 5400
Eighth	Chester Pharmacy	80 Washington Ave.	Br. Brook 6279
Eighth	A. Ilaria	345 Bloomfield Ave.	Br. Brook 3713
Ninth	G. Linnett & Bro.	77 Lincoln Park	Mitchell 3034
Ninth	Lincoln Drug Co.	1123 Broad St.	Bigelow 5769
Ninth	B. M. Gersten	1016 Bergen St.	Terrace 5740
Ninth	Bergman's Pharmacy	175 Elizabeth Ave.	Bigelow 5825
Ninth	White Pharmacy	45 Wright St.	Bigelow 5882
Ninth	Ritz Carlton Pharmacy	280 Clinton Place	Waverly 6300
Ninth	Geo. Keller	1019 Broad St.	Market 8498
Ninth	Beth Israel Hospital	Lyons & Maple Aves.	Terrace 5700
Tenth	East Side Pharmacy	58 Pulaski St.	Mitchell 3560
Eleventh	H. R. Steinlein	499 Orange St.	Br. Brook 0197
Eleventh	Tivoli Pharmacy	595 Orange St.	Br. Brook 0339
Eleventh	5th Precinct Police Station	Orange & Sixth Sts.	Market 5400
Twelfth	O. Scholz	131 Wilson Ave.	Market 9020

ANTITOXIN AND CULTURE STATIONS BY WARDS—Continued

Ward	Station	Address	Telephone No
Twelfth	B. H. Levitt	28 Fleming Ave	Market 6267
Twelfth	3rd Precinct Police Station	Market & Read Sts	Market 8400
Thirteenth	A. Marquer	1041 South Orange Ave	Essex 7722
Thirteenth	A. Reusch	661 Springfield Ave	Bigelow 2099
Thirteenth	7th Precinct Police Station	South Orange Ave	Market 5400
Thirteenth	Byrne's Pharmacy	12th St & So. Orange Ave	Market 2094
Thirteenth	S. W. Gaidamak	314 Fifteenth Ave	Bigelow 5827
Thirteenth	Morris Feinstein	299 Sixteenth Ave	Essex 6210
Fourteenth	F. L. Beault	76 Belmont Ave	Bigelow 5835
Fourteenth	A. Koelbe	362 Springfield Ave	Bigelow 3407
Fourteenth	4th Precinct Police Station	Seventeenth Ave	Market 5400
Fourteenth	S. Lavigne	461 Hunterdon St	Bigelow 2576
Fourteenth	C. Wunsch	Springfield Ave & 18th Ave	Waverly 2484
Fifteenth	E. Broch	398 Central Ave	Market 3301
Fifteenth	I. Hagny	Central Ave & Fifth St	Br. Bronx 4189
Sixteenth	F. Jung	531 Clinton Ave	Waverly 2468
Sixteenth	W. J. Witt	821 Clinton Ave	Waverly 2871
Sixteenth	6th Precinct Police Station	Hunterdon & Bigelow Sts	Market 5400
Sixteenth	B. & B. Pharmacy	117 Clinton Place	Bigelow 3057
Sixteenth	Parks Pharmacy	214 Hawthorne Ave	Waverly 2641
Sixteenth	J. H. Lizzak	Hobson St. & Lyons Ave	Waverly 6893
Sixteenth	Avon Pharmacy	191 Avon Ave	Waverly 1376

ANNUAL REPORT

OF THE

City Dispensary

NEWARK CITY DISPENSARY

Plane and William Streets

CLINICS

MEDICAL	Daily	9 A. M.
DISEASES OF CHILDREN.....	Daily	10 A. M.
SURGICAL	Daily	9 A. M.
GENITO-URINARY	Monday and Thursday	10 A. M.
DISEASES OF WOMEN.....	Tuesday	3 P. M.
CYSTOSCOPIC	Wednesday	10 A. M.
DISEASES OF SKIN.....	Tuesday and Friday	9 A. M.
DISEASES OF RECTUM	Tuesday and Friday	10 A. M.
SYPHILIS, MALE	Daily	10 A. M.
SYPHILIS, FEMALE	Daily	10 A. M.
EYE, EAR, NOSE AND THROAT	Monday and Friday	3 P. M.
ORTHOPEDIC	Tues., Thurs. and Saturday	9 A. M.
DENTAL	Monday, Wednesday and Friday	12:30 P. M.
PRENATAL	Thursday	3 P. M.
CARDIAC	Thursday	9 A. M.
NEURO-PSYCHIATRIC	Mon., Wed. and Thurs.	3 P. M.
ESSEX CO. HOSPITAL Paule Clinic	Tuesday	2 P. M.
NERVOUS DISEASES.....	Friday	2 P. M.
METABOLIC	Monday 3 P. M. Wednesday	10 A. M.
GASTRO-ENTEROLOGY.....	Mon., Tues. and Fri.	9 A. M.

TUBERCULOSIS CLINICS

ADULTS AND CHILDREN	Daily Except Saturday	3 P. M.
EVENING CLINIC	Wednesday	6 P. M.
COLORED CLINIC	Tues., Fri. and Sat.	9:30 A. M.

ADMISSION TO SANITORIUM

VERONA	Friday	10:30 A. M.
GLEN GARDNER.....	Wednesday	9:30 A. M.

DISPENSARY MEDICAL STAFFDR. N. B. HELLER, *Clinical Director***SURGICAL CLINIC**DR. DAVID A. KRAKER, *Director*DR. JOSEPH LIVINGSTON, *Chief**Assistants*

DR. I. I. RATH

DR. CHARLES RIPLEY

DR. S. WOLFE EMMER

DR. LOUIS BYCK

DERMATOLOGY AND SYPHILISDR. H. J. F. WALLHAUSER, *Consultant*DR. LOUIS A. KOCH, *Director*DR. F. J. McCAULEY, *Chief**Associates*

DR. N. B. HELLER

DR. ROBERT SELLERS

DR. N. V. DELDEO

DR. ERNEST KAUFMAN

DR. I. LEBEL

DR. AMFS FILIPPONE

DR. S. RAVITZ

DR. C. D. RIPLEY

DR. I. MILONE

DR. I. LEHMAN

GENITO-URINARY CYSTOSCOPICDR. R. C. O'CROWLEY, *Director*DR. EDWIN SEIDMAN, *Chief**Associate*

DR. SAMUEL ROTHENBERG

Assistants

DR. WILLIAM NASH

DR. B. ROTHHOUSE

DR. W. T. RUMAGE

DR. MAX WEGMAN

DR. N. RAMOS

DR. BENJAMIN POLOW

GYNAECOLOGICALDR. WILLIAM GAUCH, *Director*DR. A. J. GORDON, *Chief**Assistant*

DR. A. G. CHMELNICK

PEDIATRIC

DR. JULIUS LEVY, *Consultant**Assistants*

DR. R. V. SHAPIRO

DR. S. ORLOFF

DR. I. ZWEIGEL

DR. B. MARGULIS

PRENATAL

DR. A. J. GORDON, *Chief**Associate*

DR. S. WOLFE EMMER

PROCTOLOGY AND GASTRO ENTEROLOGY

DR. D. D. KRAKER, *Director*DR. CARL WINTSCH, *Chief**Associates*

DR. WILLIAM RATHGEBER

DR. HARRY GILBERT

DR. S. B. KAPLAN

Assistant

DR. IRVING BIERMAN

INTERNAL MEDICINE

DR. FREDERICK HORSFORD, *Consultant*DR. N. B. HELLER, *Director*

DIVISION A

DR. D. N. MISHELL, *Chief*DR. F. LAVAGGI, *Associate*

DIVISION B

DR. JULIUS BERNSTEIN, *Chief*DR. U. FRANK, *Associate*

DIVISION C

DR. SAMUEL BAUM, *Chief*DR. CHAS. MINNEFOR, *Associate*

METABOLISM

DR. THEODORE TEIMFR, *Director*DR. SELMA WEISS, *Chief**Associate*

DR. H. G. MCBRIDE

DEPARTMENT OF PUBLIC WORKS

NEUROLOGICAL

DR. CHRISTOPHER BELING, *Consultant*DR. JULIUS SOBIN, *Director**Associate*

DR. M. W. BERGMAN

ESSEX COUNTY PAROLE CLINIC

DR. CHARLES E. ENGLANDER, *Director*

CARDIAC-MEDICAL

DR. M. J. FINE, *Director*DR. S. BERG, *Chief*

EYE, EAR, NOSE AND THROAT

DR. E. CURTIS, *Consultant**Associate*DR. C. A. MENTZER, *Eye**Assistant*DR. M. WEINBERG, *Ear, Nose and Throat*

TUBERCULOSIS

DR. M. J. FINE, *Director*DR. IRVING WILLNER, *Assistant Director**Associates*

DR. LOUIS DAVIS

DR. THOMAS BELL

DR. JAMES V. D. JASO

ORTHOPEDIC

DR. CARL R. KEPPLER, *Director*DR. H. FRIEDMAN, *Chief*

DISTRICT PHYSICIANS' LINES**(Home Treatment for Indigent Patients)**

First District—East Kinney Street from Jefferson Street to Belmont Avenue, to 18th Avenue, to City Line, around to imaginary line at Jefferson Street, to East Kinney Street. District Physician—Dr. G. Caruso, 20 State Street. Telephone Branch Brook 4173.

Second District—Sussex Avenue from Norfolk Street to North Fifth Street, to Orange Street, to City Line to South Orange Village Line to Irvington Line, to Twentieth Street, to Eighteenth Avenue, to Belmont Avenue, to Jones Street, to Norfolk Street, to Sussex Avenue. District Physician—Dr. P. V. Pava, 220 South Seventh Street. Telephone Mitchell 5262.

Third District—Fulton Street from Passaic River to Broad Street, to East Kinney Street, to Jefferson Street, to Passaic River. District Physician—Dr. Watson F. L. Rodemann, 21 Ferry Street. Telephone Market 1764.

Fourth District—Jefferson Street from Passaic River to City Line, south to Newark Bay, to Passaic River, to Jefferson Street. District Physician—Dr. H. E. Ricketts, 23 Shephard Avenue.

Fifth District—Central Avenue to Sussex Avenue to Norfolk Street, to South Orange Avenue, to Jones Street, to West Kinney Street, to Broad Street, to Central Avenue. District Physician—Dr. R. R. Grasso, 220 Clifton Avenue. Telephone Branch Brook 9007.

Sixth District—Fulton Street from Passaic River to Central Avenue, to Sussex Avenue, to North Fifth Street, to Orange Street, to East Orange City Line, to Belleville City Line, to Passaic River, to Fulton Street. District Physician—Dr. M. Jedel, 125 Fourth Street. Telephone Humboldt 3270.

ANNUAL REPORT

OF THE

City Dispensary

To Dr. Charles V. Craster, D. P. H., Health Officer.

Dear Sir:

I herewith submit the Annual Report of the Newark City Dispensary for the year of 1928.

Respectfully submitted,

HENRY A. OLTMAN,
Apothecary.

	1928	1927
Total number visits made by patients	86,878	70,382
Clinic prescriptions filled	91,528	74,359
Visits to patients' homes by District Physicians	—	5,628
Patients sent to City Hospital and other Hospitals maintaining City Beds	2,053	1,898
Total number vaccinations	414	405
Total number new cases in clinics	20,255	15,701
Schick tests	740	—

During the past year the total number of visits during this period being 86,878, an increase of more than 16,000 of the year before. The number of patients sent to hospitals was 2,053. The total number of new cases also shows an increase.

There soon will be need to provide for enlarged space for adequate facilities and equipment to make possible the satisfactory diagnosis of patients.

A lack of willingness among physicians without compensation manifests itself and it is sometimes difficult for carrying out the medical policies and maintaining the working standards of the clinics, although the constant and regular work of the dispensary has gone on without a hitch throughout the year due to the faithful services of its corps and the medical staff.

The clinic of venereal diseases has made marked progress by organizing a division for clinical treatment of syphilis during the week and hope to see in the near future the same thing done for treatment of gonorrhoea. The space allotted for treatment on the regular clinic days was not ample enough to give proper service.

The staff of workers has been increased thus giving more time for follow-up work.

One of our most urgent needs is the installation of an X Ray unit. The manner it is conducted by sending patients to the City Hospital takes too much time before the picture is received at the Dispensary.

The modern dispensary institution must also be an educational force. To provide skilled medical service for all who need it and cannot otherwise secure it. Poor we now see to be a relative term. There are families which are self supporting while the father of the family is able to work but who have earned too little to meet the emergency of sickness. To relieve temporary distress and suffering, the minor ailments of today, which may be the big illness of tomorrow, is the work of the dispensary, also the prevention of disease and higher grades of health and living efficiency.

NEW CASES IN CLINIC FOR YEAR 1928

Medical	3,148	Dental	1 548
Surgical	3,228	Neurological	241
Diseases of Children	1,736	Neuro-Psychiatric	126
Genito-Urinary	1,009	Syphilis	968
Diseases of Women	825	Tuberculosis	1 429
Diseases of Skin	1,744	Mental Parole	69
Proctology and G. I.	207	Schick Tests	740
Eye, Ear, Nose and Throat..	2,117	Cardiac	70
Orthopedic	550	Metabolic	234
Prenatal	300		

DISTRICT PHYSICIANS' VISITS AND PRESCRIPTIONS DISPENSED, 1928

District	Prescriptions	Indigent Visits	Diag. Visits
First	388	507	620
Second	328	707	565
Third	322	432	164
Fourth	627	732	315
Fifth	218	454	240
Sixth	289	570	510
Total.....	2,172	3,402	2,414
Total Visits		7,988	

ANNUAL REPORT OF DENTAL CLINIC

1928	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Examinations	148	140	153	138	128	136	141	169	136	100	103	107	1599
X-Rays	14	11	14	10	7	4	7	5	3	4	3	6	88
Total Fillings	61	50	67	69	71	79	82	83	57	62	60	59	800
Oral Prophylaxis	134	97	101	91	82	83	63	77	46	56	65	54	928
Other Operations	23	22	19	10	0	10	12	9	7	0	0	3	115
Treatments	117	124	131	119	110	114	120	127	103	110	103	110	1388
Extractions	117	111	117	117	98	94	85	86	72	75	68	72	1112
Prostheses	201	213	301	96	201	216	211	215	201	206	199	201	2461
Amalgam	47	31	44	49	55	61	72	70	41	45	41	40	596
Cement	14	19	23	20	16	18	10	13	16	17	19	19	204
Communicable Diseases	1	4	0	4	6	7	0	3	1	3	6	6	41
Total	856	822	920	723	774	822	803	857	683	678	667	677	9332

PATIENTS REFERRED BY INSTITUTIONS

Dispensary Clinics	426	Parochial Schools	523
Eye, Ear, Nose & Throat Inf	49	Public Schools	168
Social Service Bureau	38	City Hospital	221
Other Institutions	43		

**PATIENTS SENT TO CITY HOSPITAL BY PERMITS ISSUED FROM DISPENSARY FOR
CITY HOSPITAL AND CITY BEDS MAINTAINED BY OTHER HOSPITALS**

HOSPITALS	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
City Hospital	64	84	96	90	104	104	96	74	74	110	86	76	1058
St. Michael's	5	11	7	3	7	5	2	2	3	3	2	3	53
St. James	7	18	8	6	7	4	3	8	5	1	5	8	80
St. Barnabas	4	6	3	7	7	6	2	2	4	4	1	5	51
Newark Memorial	19	25	14	10	13	10	13	8	5	8	10	4	139
Beth Israel	13	8	11	9	5	14	15	19	3	1	2	1	101
Balux	30	50	17	29	19	22	27	26	22	25	19	18	304
Eye & Ear Infirmary	13	17	8	31	17	16	31		24	36	23	29	245
Newark Maternity	1	0	0	0	0	1	0	0	0	2	1	2	7
Hospital & Home for Crippled Children	1	2	0	0	1	0	1	1	2	2	3	0	15
Eighth Ave. Day Nursery	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	159	221	164	185	180	182	190	140	142	192	152	146	2053

TOTAL ATTENDANCE AT DISPENSARY BY MONTHS AND DISEASES TREATED

CLINICS	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Medical	958	879	1105	937	1088	1071	1145	1139	1026	818	688	943	11857
Diseases of Children	391	439	544	326	426	328	296	221	268	450	417	332	4438
Surgical	733	661	995	1095	759	591	937	1185	1011	875	628	825	10295
Genito-Urinary	753	826	912	861	832	761	789	816	869	763	693	685	9560
Tuberculosis	326	403	483	382	393	442	473	360	390	369	321	395	4737
Cystoscopic	26	21	16	14	10	9	15	26	29	12	16	12	206
Vaccinations	12	5	24	22	170	52	10	26	48	30	9	6	414
Diseases of the Skin	426	385	498	433	564	537	565	484	442	526	381	445	5886
Proctology & Gastro-Ent.	95	179	182	158	205	212	175	142	108	176	131	127	1890
Syphilis - Male	672	691	769	790	761	710	783	842	827	846	852	749	9292
Syphilis - Female	659	710	693	713	746	698	712	769	791	693	712	801	8697
Eye, Ear, Nose & Throat	259	209	249	200	214	285	240	259	190	339	309	762	3015
Orthopedic	443	439	473	396	503	377	379	357	299	274	313	328	4581
Dental	306	315	388	358	309	365	378	421	265	281	239	246	3871
Prenatal	60	69	70	51	84	79	89	105	83	100	103	114	1007
Cardiac	28	31	42	34	55	41	41	29	24	27	30	25	407
Neuro-Psychiatric	14	17	53	76	93	68	72	67	69	42	107	138	816
Parole Clinic	24	24	24	21	56	36	47	23	22	76	29	31	423
Nervous Diseases	111	88	263	114	105	148	118	126	120	111	125	118	1547
Metabolic	200	177	250	209	229	213	258	213	164	198	193	204	2308
Diseases of Women	184	135	110	120	150	142	192	140	129	107	112	110	1631
Total Treated	6690	6703	8143	7310	7752	7185	7714	7750	7174	7173	6408	6896	86,878
Clinic Prescriptions	6914	6940	8621	7829	8096	7462	8026	8110	7783	7642	6791	7314	91,578

ANNUAL REPORT

OF THE

Venereal Disease Bureau

ANNUAL REPORT
OF THE
Venereal Disease Bureau

Dr. Charles V. Craster, Health Officer.

Dear Sir:

Following is the Annual Report of the Venereal Disease Bureau for the year ending December 31, 1928.

Respectfully submitted,

H. J. F. WALLHAUSER, M. D.,
Director.

WILLIAM T. RUMAGE, M. D.,
Assistant Director.

The study of congenital syphilis is now receiving the attention it rightly deserves. Practically all the venereal control agencies are putting forth extra effort to uncover and treat syphilis in the pre-natal and post-natal state. It would be well to suggest at this time the establishment of a clinic especially devoted to the treatment of syphilis in pregnant women and in children up to the age of fourteen years. After this age syphilis is considered acquired, providing the history of the case does not determine otherwise.

A clinic for juvenile syphilis would be in keeping with the advancement of other public health efforts. Exclusive medical clinics are now provided for children, therefore they should have exclusive syphilis clinics. Special case histories should be provided and the course of the disease and progress

of treatment noted. Many other diseases have been eradicated comparatively quickly, but not so with congenital syphilis. So far, some success has been gained in rendering patients non-infectious in early stages of syphilis, but there are many latent cases transmitting the infection to their offspring.

Syphilis does not enter into the production of abortion in the first four months as it is only after that time that the foetus is developed. Therefore syphilis as a causative factor is excluded prior to that time. In a medico-legal case the court excluded syphilis as the causing factor in a suspected criminal abortion of a three months' pregnant woman. Syphilis is not recognized in all instances. A large number of latent syphilitic infections remain in women where sero-reactions fail to reveal the diagnosis. Therefore it is necessary to examine all pregnant women for clinical evidence of syphilis and also careful history taking for the ascertaining of facts that would lead to a suspicion of latent syphilis.

The question as to whether children whose mothers have been treated during gestation should be treated is hard to answer. However, if the infection has occurred many years back and treatment during the pregnancy has been adequate, one can wait and observe the child. If the mother has been infected shortly before or after conception the child should be treated even if no symptoms are manifest.

The linking up of anti natal work and maternity and child welfare with venereal disease work is an important step in the prevention of congenital syphilis.

The social service department of the bureau has rendered valuable aid in tracing and bringing under treatment sources of infection and congenital syphilitics, also persons found infected who were apprehended in disorderly house raids and patients who are delinquent in attendance at the clinics.

A few of our interesting case records follow:

Case No. 1. M. S., age 35 years, white, married, occupation auto mechanic. Came to the clinic for a venereal examination (blood test). He gave a history of having syphilis 10 years ago. He was under a physician's care for five years, during which time he received continuous anti-luetic treatment. At the conclusion of his treatment he asked his physician would he approve of his getting married. His physician assured him he was no longer infectious and that his blood tests were negative, and that he probably would have healthy children. One year after his marriage his wife gave birth to a female child who had all the symptoms of congenital syphilis, Hutchinson teeth, deafness, saddle nose and a progressive optic keratitis. The child has been seen by a number of reputable physicians, who have all diagnosed the condition as congenital syphilis. A blood Wassermann taken on the father January 22, 1929, at the clinic and examined at the Newark City Hospital laboratory was returned four plus.

Case No. 2. A. M. S., age 15 years, white, male, pupil at ungraded school. Visited the rectal clinic for sores on his rectum and was referred to the venereal bureau for examination. A clinical diagnosis of condyloma lata was made, a blood Wassermann taken, which was returned four plus. He gave a history of picking up with another boy of his age who was a pupil at a Bmet school. This boy told him that he could make some "easy money" if he would go with him to a man's house. While there A. M. S. submitted to sodomy. Two weeks later he developed clinical syphilis. The man was arrested, tried and sentenced to State Prison for six years. Both of the boys were sent to the Rahway Reformatory.

Case of C. N., age 15 years, female. Was referred to the Bureau by the City Hospital maternity ward, where she gave birth to an out-of-wedlock baby girl. A blood Wassermann

taken there was returned four plus. In taking the social history she implicated a young foreign boy, F. R. Upon questioning him he denied emphatically any contact whatsoever with the girl. Her parents engaged counsel and the case came to trial before a jury. Blood typing of the father and baby were done but the report was of no aid in disposing of the case. Next a blood Wassermann was taken on the youth and it was returned negative. On this evidence the jury returned a verdict of not guilty and the youth was acquitted of the charge.

Case of A. R., male, white, age 25 years, occupation barber. Applied to the clinic for treatment for gonorrhea urethritis. In obtaining information as to the source of his infection he admitted he was acquainted with the girl but did not know her address. However, he had a date with her the following day and would bring her in to the clinic. This he did. In questioning her she said she was a waitress in a Broad Street restaurant. When asked to show her food handler's permit she admitted she was lying. She next gave her address as Stone Street, Elizabeth. Just at this time a city policewoman entered the clinic and suggested that the girl be sent to Captain Sebold of the City Detective Bureau for questioning. Here she admitted that she was a runaway and that her home was in South Amboy. She said she had recently lived in Bayonne, where she carried on as a prostitute. She also implicated two men of foreign birth who would "sell her" to their countrymen for twenty-five dollars. She was turned over to the Bayonne police after her parents in South Amboy were notified.

EXAMINATION OF FOOD HANDLERS

Total number examined	16,779
Number of blood Wassermanns taken	45
Number of positive reactions	12
Number of smears taken	80
Number of smears positive for G. C.	42
Number of dark fields done	9
Number positive for Triponema Pallida.....	3

REPORTS TO THE BUREAU OF CASES UNDER CARE
OF PRIVATE PHYSICIANS, 943

	Male	Female
Total number of syphilis ..	229	114
Total number of gonorrhea . . .	331	124
Total number of chancroid	45	.....

CLINICS (SYPHILIS)

Total number of blood Wassermanns taken	3,540
Number returned positive.....	655
Total number of dark fields ..	85
Number returned positive.....	18
Total number of new cases applying for treatment, "Walk ins" ..	576
Number of cases referred by Newark City Hospital .	92
Number of cases referred by private physicians.	260
Number of cases referred by private and semi-private hospitals	78
Number of old cases under treatment January, 1928 .	870
Total number of treatments given during year 1928 ..	25,114
Total number discharged, condition arrested or cured ...	665

DRUGS—INJECTIONS

Neo-arsphenamine intravenous	3,375
Sulph-arsphenamine	675
Sodium Thio sulphate ..	504
Tryparsamide	620
Bismuth salicylate intramuscular	12,825
Mercury bichloride intramuscular.	7,115

GENITO-URINARY

	Male	Female
Total number of smears taken.....	1,250	275
Number returned positive.....	480	65
Total number of new cases applying for treatment, "Walk ins"	1,220	255
Number of old cases under treatment January 1, 1928	180	35
Total number of treatments given	9,760	984
Total number of cystoscopic examinations	90	17
Number discharged cured.....	460	42

SOCIAL SERVICE

Investigations and Home Visits

Sources of infection, number of visits.	380
Delinquents—Syphilis, number of visits	2,060
Delinquents—Gonorrhea, number of visits	1,210
Anonymous communications, number of visits . . .	28
Cases referred by Domestic Relations Court	42
Cases referred by other clinics of Department . . .	165
Congenital syphilis, number of visits.	46
Family contacts, number of visits	140
Known exposures, number of visits	105

POLICE CASES

	Total Specimens		Positive Wassermann		Positive Smears Gonorrhea		Dark Fields Positive	
	M	F.	M.	F.	M.	F.	M	F
January	12	8	3	2	2	2	0	0
February	14	7	4	2	3	1	0	0
March	9	9	3	3	2	2	0	0
April	12	8	2	2	3	1	1	0
May	14	10	3	4	2	2	0	1
June	15	12	5	4	2	1	1	0
July	16	14	3	5	3	2	0	0
August	15	13	4	3	2	2	1	0
September	14	13	3	2	2	1	1	1
October	15	14	3	3	2	2	0	0
November	13	11	2	3	1	1	0	0
December	14	8	2	4	2	1	1	0

Held for Grand Jury.....	32
Placed on Probation.....	36
Sentenced to Essex Co. Jail . . .	28
Sentenced to Essex Co. Penitentiary.....	3
Committed to Clinton Reformatory for Girls.....	27
Committed to Rahway Reformatory for Boys.....	22

ANNUAL REPORT

OF THE

Parochial School Inspection
Service

ANNUAL REPORT
OF THE
Parochial School Inspection
Service

The development of the Parochial School Inspection Service was a reflection of the more advanced opinion held in this country with regard to children, that their health, welfare and happiness had become a business of the State. Poverty and destitution were no longer the only reasons for State interference but certain fundamental requirements of parental attitudes were required to be adopted as a legal standard of child care. It has become a recognized fact in the State of New Jersey and in many other States that the child is not by our present interpretation of justice to be considered as the goods and chattel of its parents, to be brought up according to any idea of the mother or father, but rather that the child has its rights under our Constitution which cannot be gainsaid.

The Magna Charta of Childhood

The child of today can demand a proper home, where it shall be raised under conditions of comfort and health, when it shall be fed, clothed, educated and protected by the standards set up by the society to which its parents are responsible. It is this modern attitude to the child that has made the parent no longer its owner, but merely the guardian responsible to

the State for the bringing to a healthy maturity, both physical and mental, of a future citizen.

The New Jersey State Welfare Law of 1915 may well be called the Magna Charta of childhood, for under its provisions the rights of children are upheld. It defines clearly what is abuse, abandonment, cruelty and neglect of a child. What most concerns the Boards of Health in this State is the fact that under neglect, a failure to provide proper and sufficient medical attendance, or surgical treatment, is a violation of this law which carries a penalty of a fine of one hundred dollars or to imprisonment of one year in jail.

Defects Readily Remedied Under the Law

The Child Welfare Act has been of very great value in assisting the Department to require parents to remedy defects found in the course of school inspection. It speaks well, however, for the average parents in this city that few cases are ever required to be brought before the Courts, a letter usually or a verbal notice outlining the law and its penalties is sufficient to insure necessary treatment being given.

School Inspection Record—1928

The city has 25 Parochial Schools with an average attendance during the year of about 15,000 pupils. The nine nurses of the Division are assigned to certain schools, so that not more than 1,700 pupils shall be under the supervision of each nurse. It is required that each pupil shall have a physical examination at least once during the school year. The number of physical examinations carried out in 1928 was 24,236, an increase of 6,716 examinations over the previous year. Reinspections made for the same year numbered 20,754, an increase of 7,499 over the year 1927. The type of physical examination requires the examination of the teeth,

nose and throat, ears and hearing, eyes and eyesight, skin and a general intelligence test for school mental grading. The head and general physical condition of the body is looked at for any abnormal conditions that may be present and the general anatomical picture, particularly as this may apply to nutrition. Weighing and measuring is a routine procedure, all the facts of which are recorded upon the physical card which accompanies the child through its whole school course from class to class. This makes it easy to follow the physical development of the child and to follow up upon the remedying of any known defect. Feeble-minded children are sent to mental clinics, usually those of the Board of Education, or to suitable schools for the feeble minded. The class inspection and talks numbered 6,809, as compared with 5,323 in 1927. General home calls made numbered 1,096 for the year.

Defects Remedied 65% of Total Found

The total number of defects found during the school year numbered 20,658, as compared with 17,902 in the previous year. The defects remedied numbered 13,093, or 65% of defects found, an increase of 40% as compared with 1927. Dental defects found numbered 11,697, with 62% remedied. The three dental clinics at St. Michael's, St. Rose of Lima and St. Casimir Schools are useful adjuncts to the work done by the Municipal Free Dental Clinics, but are handicapped by the enormous amount of such treatments always in demand.

Nose and throat defects numbered 3,766, with 2,054 cures, 55% remedied. From the nature of these defects requiring the removal of tonsils and adenoids it is sometimes impossible to get quick results. Parents will delay in giving consents and the free hospital clinics have long waiting lists. When parents refuse, however, to have tonsils or adenoids removed which are manifestly affecting the general health

of the child, the case is referred to the Children's Court for action under the Child Welfare Act.

There were 2,165 eye and ear defects found, with 73% remedied. Glasses for children who are unable to pay for the same are provided by the various school charity guilds or sometimes by the school authorities themselves. The skin conditions found numbered 2,015, with 63% remedied. Vermin and unclean conditions found numbered 981, with 89% remedied.

Bobbed Heads Are Sanitary

It is now a rare thing to find vermin in the schools of this system. The fashion of "bobbed heads" is no doubt of material assistance in preventing the harboring of vermin and is in the opinion of the nurses a first-class sanitary preventive. The 3+ mental defects found were referred to special schools and classes in the Public Schools or to suitable State institutions after mental examinations had been made.

Cures and Defects

	-----1928-----			-----1927-----		
	Defects	Cures	%	Defects	Cures	%
Teeth	11,697	7,312	62	11,221	5,689	51
Eye and Ear	2,165	1,593	73	1,926	874	46
Skin	2,015	1,254	63	1,646	889	53
Nose and Throat	3,766	2,054	55	2,250	1,015	45
Vermin-Unclean	981	880	89	776	860	100*
Mental	34	x	x	83	x	x
	20,658	13,093	65	17,902	9,327	52
Increase in Defects				15%		
Increase in Cures				40%		

x Mental cases referred to special classes in Public Schools or suitable institutions.

* Vermin and unclean, more cures than defects due to repeated treatments for cure.

Diphtheria Immunization

Diphtheria immunization in the Parochial Schools has progressed to an excellent degree. The following table shows slightly over 70% of all children so protected against 58% a year ago. Over 90% of the new children in kindergarten and first grade are being immunized.

DIPHTHERIA IMMUNIZATION TOTALS

December, 1928.

Nurse	School	Total Pupils	Immunized	Not Immunized
Miss Clinton				
	St. Frances	293	270	23
	Sacred Heart	239	176	63
	St. Lucy	405	405	0
	St. Michael	500	320	180
Miss Evans:				
	Blessed Sacrament	902	538	364
	St. Philip's	177	149	28
	St. Ann	468	370	98
Miss Fulton:				
	St. Mary	309	259	50
	St. Bridget	173	149	24
	St. Patrick	497	408	89
	St. Stanislaus	622	543	79
Mrs. Lambert:				
	St. James	879	623	256
	St. Aloysius	670	399	271
Miss Maloney:				
	St. Joseph	1,147	804	343
	St. Peter's	428	306	122
Miss Mawer:				
	Good Counsel	589	355	234
	St. Augustine	190	87	103
	St. Rose of Lima.....	851	594	257

Mrs Rock.

St. Columba	801	558	243
St Peter's Orph	409	311	98
St. Charles	382	304	78

Mrs Sadler:

St Antoninus	895	781	114
Sacred Heart	953	773	180

Miss O'Malley:

St Casimir	1 314	991	323
St. Benedict	660	185	475

Totals	14,753	10,658	4,095
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PAROCHIAL SCHOOL MEDICAL INSPECTION, 1928

SCHOOL	Teeth		Eye-Ear		Skin		Nose and Throat		Verminal-Unknown		Mental Behavior	Excluded	Vaccinations	School Treatments	Physical Examination	Relinquished	Mass Inspection and Talks	General Home Care
	Defect	Cure	Defect	Cure	Defect	Cure	Defect	Cure	Defect	Cure								
St. Lucy	180	121	3	5	18	5	94	31	43	64	2	81	227	549	367	742	234	26
St. Michael	358	196	31	38	5	3	55	65	5	29		38	614	546	851	1413	345	18
St. Frances	289	220	6	13	1	5	65	42	5	14		10	324	203	154	1055	244	5
Sacred Heart (B.B.)	248	226	15	22	1	4	50	65	11	27		15	123	0	584	813	177	1
Blessed Sacrament	561	309	307	151	13		448	127	33	75		40	53	806	1344	161	131	33
St. Ann	656	319	340	182	35	20	432	118	60	47	5	28	40	888	1353	294	156	28
St. Philip	371	208	177	123	41	24	236	100	62	41	6	18	20	412	745	205	104	24
St. Broget	369	180	29	40	70	52	33	48	17	33		25	30	289	506	822	208	35
St. Stanislaus	859	136	75	79	150	105	93	103	11	30	2	20	34	741	810	1359	225	40
St. Mary	336	271	53	66	104	74	46	52	25	24	4	24	30	388	591	904	207	19
St. Patrick	613	310	65	83	115	84	63	77	41	29	3	41	48	689	636	1475	236	72
St. James	644	456	141	106	170	99	257	128	66	76	8	120	58	990	1065	2283	419	46
St. Aloysius	594	403	149	94	161	71	306	107	42	28	1	73	57	825	1324	2060	686	40
Good Counsel	514	307	48	31	16	10	113	90	33	17		35	84	655	1207	1075	190	67
St. Augustine	288	187	28	17	5	5	75	50	72	57		14	38	410	371	751	156	41
St. Rose of Lima	506	320	68	25	8	8	113	77	95	67		71	90	491	1486	916	205	45
St. Joseph	474	389	164	133	15	47	316	157	31	49	1	99	97	961	1510	1881	560	97
St. Peter-Bel	314	245	103	90	12	34	18	128	12	6		7	15	367	909	1965	173	57
St. Casimir	662	173	66	30	178	147	204	101	3	3		49	79	888	1313	1368	718	30
St. Benedict	553	152	4	48	273	116	132	64	2	6		22	98	108	1001	1398	205	62
St. Charles	310	260	3	14	15	15	62	55	30	13		43	40	467	594	820	176	48
St. Columba	516	361	36	26	4	26	110	86	119	76	2	111	41	1421	867	1355	423	83
St. Peter's Orphanage	354	341	23	14	13	6	89	71	28	15		27	36	674	775	921	295	15
Sacred Heart (Val)	600	462	70	72	141	120	83	52	44	52		108	69	946	1563	1992	255	81
St. Antoninus	804	565	89	80	208	167	104	50	85	72		157	80	1561	1600	2525	211	93
Total 1928	11697	7312	2165	1594	2015	1254	3766	2054	981	880	34	1271	2427	16935	24236	30544	6809	1096
Total 1927	11221	5689	1926	874	1646	889	2250	1015	776	860	83	1077	1413	13841	17520	33255	5373	1276

ANNUAL REPORT

OF THE

Division of Tuberculosis

ANNUAL REPORT
OF THE
Division of Tuberculosis

To Charles V. Craster, M. D., Health Officer.

My dear Dr. Craster:

I herewith present the report of the Tuberculosis Division for the year 1928. This covers the work accomplished through our clinics, the examination of food handlers, the nurses, physicians and general field activities.

Respectfully submitted,

M. J. FINE, M. D.,
Director.

TUBERCULOSIS IN 1928

M. J. FINE, M. D.

Mortality 86.9

Although the mortality and morbidity is a little higher than last year, we would not consider that tuberculosis is on the increase. This is the natural curve that usually occurs in every disease. Sometimes there is a slight elevation and sometimes a slight decrease, but I still believe that tuberculosis in Newark is on the decline. This slight increase in the mortality corresponds with what occurred everywhere.

Morbidity

The morbidity proportion among the white and colored is about the same, but there is a slight decline in the tuberculosis mortality among the colored. This is probably due, either to the decrease in immigration, or they are developing a slight immunity towards tuberculosis and are better able to resist the tubercle bacilli while in contact with the whites.

There is a decrease in the morbidity of childhood as compared with last year. There are less people afflicted with tuberculosis between the ages of 1 and 15. I would like to stress at this point that the number of reported cases by private physicians is not up to the standard. I believe there are still a great number of cases of early tuberculosis remaining undiscovered, probably due to the fact that some physicians are afraid to tell the patient that he has tuberculosis. The early reporting of cases makes possible the discovery of early contact cases, by the examination of same.

Hospital and Sanatorium

The question of hospital and sanatoria beds is still a serious one. The patient remains a burden to the home and a burden to the community in the way of increasing the infection to other members of the family. The kind of cases admitted to the sanatoria today, mostly to the County institutions, are far advanced. I believe that these patients should not go to the sanatorium after waiting two or three months for admission. It is better for them to remain at home for the reason that they only live a few days or weeks after being admitted to the sanatorium. When the patient is far advanced, he needs the comfort of home surroundings where his last few days can pass peacefully, more than he does fresh air and good food. The only thing that speaks against this point is the danger to the other members of the family. It is most essential, therefore, that each case be admitted early to the sanatorium.

Where the cases are discovered late, they should be placed in some hospital near home where the patient can be made comfortable and properly fed and the family relieved.

The discovery of early cases of tuberculosis in Newark does not help any, in view of the fact that they are far advanced by the time they are admitted to the sanatorium. In many instances the patient is so discouraged by waiting that he refuses to go to the sanatorium when sent for.

The readmission of cases that have been in the sanatorium is another problem that needs careful study. The chronic, moderately advanced cases run between the ages of 40 and 60 and they are not too sick to be in a sanatorium and not well enough to stay at home. Provision should be made in a colony or farm, apart from the Poor and Alms Department, where these patients could be taken care of and thus leave the beds which they are now occupying for the early cases. This would give the sanatorium an opportunity to admit patients sooner, and at the same time, relieve the county of continually increasing the bed capacity.

There is also the problem of the admission of children to the sanatoria. Although we do not find many active cases of tuberculosis among children, nevertheless a certain number of beds should be provided for the children who do need institutional care and supervision. There should also be facilities provided for the care of Bone and Surgical Tuberculosis, which is still a problem in the community.

Then, too, the economic condition of the patient today is not as good as it was a few years ago and it is necessary for the families of those afflicted with tuberculosis to seek more financial aid and relief.

Clinics

The attendance in the clinics has been considerably increased. This is true mainly in the Children's and the Col-

ored Clinic, which both showed a greater number examined this year.

The expansion of the clinics is still going on and this year we added a Pneumothorax Clinic for the patients who have been receiving this treatment while in the sanatorium and who need refills. The treatment of tuberculosis by collapsing the lung has become one of the main therapeutic agents and is used in every sanatorium. We also opened a Serum Clinic for the immunization against colds which has been very well attended and through which we discovered a few cases of tuberculosis.

Field Service

The nurses made a few hundred calls less this year than last year. This was due to the fact that during the year 1927 we made a survey which included Wards 1, 2 and 15. This was in the nature of a house to house canvass and the nurses were able to cover from 75 to 100 calls per day because of the tenement districts where there are 30 or 40 families in the one house. The regular visits made by the nurses require a great deal of time and the distance from one call to another only permits each nurse to make from 12 to 15 calls per day.

The Verona Sanatorium nurse made 1,328 visits and the Glen Gardner nurse made 1,923 visits to patients discharged from the sanatoria to see that they carried out the instructions received while at the institution.

Food Handlers

During this year we made 3,500 more examinations than last year and found 29 tuberculosis cases, 3 of which were sent to the sanatorium and the others advised to take the treatment and cure at home. There were 54 cases of venereal diseases found and rejected and 50 temporary cards issued to suspicious venereal and tuberculous patients. These patients

are given cards which permit them to work for one month, at the end of which they appear for re examination. We note that the type of food handler that is examined today appears to be in a better physical and sanitary condition than a few years ago.

Recommendations

In conclusion I would recommend the following:

The admission of patients to the sanatoria as soon as the cases are discovered.

Provision for the admission of children under eight years of age to the County institution.

A colony for chronic tuberculosis patients, to relieve the congested conditions existing in the sanatoria at the present time

Provision for Surgical tuberculosis cases in the County institution.

Periodic health examination of various groups and the early reporting of tuberculosis so that the contacts can be examined and the existing cases discovered.

TUBERCULOSIS STATISTICS FOR YEAR 1928

	1928	1927
Number Cases Reported White	714	673
Number Cases Reported—Colored	215	208
Number Cases Reported Yellow	3	8
<hr/>		<hr/>
Total Number Cases Reported ..	932	889
<hr/>		<hr/>
Number Deaths—White	306	273
Number Deaths—Colored	105	112
Number Deaths—Yellow	1	2
<hr/>		<hr/>
Total Number Deaths.....	412	387
<hr/>		<hr/>
Number Visits Made by Division Nurses ..	13,439	
Number Investigations by Division Nurses ..	112	
<hr/>		<hr/>
Total Number Visits ..	13,551	19,169
<hr/>		<hr/>
Number Food Handlers Examined at Clinic ..	16,779	13,112
Number Camp Children Examined ..	1,717	1,389
Number Examined Colored Clinic ..	1,588	1,339
Number Adults Examined ..	1,571	1,189
Number Children Examined ..	902	890
Number Examined Ironbound Clinic ..	313	370
Number Examined Hay Fever and Asthma Clinic ..	208	182
Number Examined Garside Clinic	169	398
Number Examined Waverly Clinic	125	186
Number Examined Night Clinic	52	101
<hr/>		<hr/>
Total Number Clinic Examinations ..	22,209	19,156
<hr/>		<hr/>
Number Examined Glen Gardner Clinic.....	886	738
Number Examined Verona Clinic	728	599
Number Examined Farmingdale Clinic	62	72
<hr/>		<hr/>
Total Number Examined Sanatoria Clinics	1,676	1,409
<hr/>		<hr/>
Number Suspicious Food Handler Cases Re-Examined ..	356	447
Number Physicians' Visits to Homes.....	123	132

TUBERCULOSIS CASES REPORTED DURING YEAR 1928, MONTHLY, BY SEX, COLOR, AGE

MONTH	Male	Female	White	Col- ored	Yellow	Under 1	1	5	10	15	20	25	35	45	55	65	75	1928 Total	1927 Total
							to 4	to 9	to 14	to 19	to 24	to 29	to 34	to 39	to 44	to 49	to 54			to 59	to 64	to 69	to 74
January	41	26	57	10	----	----	1	5	8	10	9	15	13	3	3	----	----	67	91
February	44	35	61	18	----	----	3	4	2	7	11	19	16	11	3	3	----	79	66
March	56	43	75	24	----	----	2	6	8	9	14	18	20	12	8	2	----	99	92
April	59	32	71	20	----	2	1	4	3	8	16	13	22	13	8	----	1	91	85
May	69	39	82	25	1	1	2	4	8	9	16	21	25	9	9	3	1	108	63
June	40	33	57	16	----	----	5	3	2	3	14	22	12	8	2	1	1	73	97
July	47	31	58	20	----	1	4	1	1	7	14	18	16	10	5	1	----	78	69
August	33	29	47	15	----	----	2	----	1	7	6	23	11	4	4	4	----	62	88
September	54	38	68	23	1	1	1	4	2	5	19	19	21	12	5	3	----	92	66
October	42	20	45	16	1	----	3	----	2	5	6	12	16	1	4	1	1	62	69
November	42	20	48	14	----	----	2	2	2	4	6	16	12	9	6	----	3	62	47
December	34	25	45	14	----	----	1	1	3	3	9	11	14	11	4	2	----	59	56
Total	561	371	714	215	3	5	26	30	39	75	141	201	200	124	61	23	7	932	
1927	563	326	673	208	8	3	36	34	37	86	131	196	188	110	52	14	2		889

TUBERCULOSIS MORTALITY AND MORBIDITY—ALL FORMS

Year	Population	No. Deaths	No. Cases Reported	Mortality	Morbidity
1915	375,000	808	2145	215.5	572.2
1916	385,000	783	2419	203.4	628.5
1917	405,000	820	2097	202.5	517.7
1918	430,000	798	1962	185.6	456.0
1919	440,000	637	1899	144.8	431.6
1920	417,654	540	1790	130.4	428.1
1921	425,000	446	1247	104.9	293.4
1922	431,792	428	1192	99.1	275.9
1923	438,669	406	1129	92.5	257.2
1924	446,000	392	909	87.9	203.8
1925	453,000	378	872	83.4	192.5
1926	460,000	421	1014	91.5	220.4
1927	467,000	387	889	82.9	190.3
1928	474,000	412	932	86.9	196.7

NATIVITY OF REPORTED CASES

United States	699
Italy	48
Poland	33
Russia	32
Germany	21
Ireland	14
England	12
Hungary	10
Portugal	9
Scotland	8
Austria	8
Spain	7
Greece	5
Lithuania	4
Canada	3
China	3
Czecho-Slovakia	3
Philippine Islands	2
British West Indies	1
Switzerland	1
Norway	1
Palestine	1
India	1
Sweden	1
South America	1
France	1
Turkey	1
Holland	1
Galicia	1
Total	932

NATIVITY OF DEATHS

United States	287
Italy	27
Poland	23
Germany	13
Ireland	12
Austria	10
Russia	8
Hungary	4
Scotland	4
Czecho-Slovakia	4
England	4
Lithuania	3
Greece	3
Portugal	2
Spain	1
Norway	1
China	1
Switzerland	1
South America	1
Sweden	1
Canada	1
Unknown	1
Total	412

ANNUAL REPORT

OF THE

Division of Child Hygiene

ANNUAL REPORT
OF THE
Division of Child Hygiene

Dr. Charles V. Craster, D. P. H., Health Officer.

Dear Sir:

I herewith present the report of this Division for the year 1928.

JULIUS LEVY.

Infant Mortality

The infant mortality rate for 1928 is 63.9. This rate is very similar to the rate for 1927, 63.3, which was the lowest infant mortality rate ever reported for the City of Newark. There were actually 10 fewer deaths under one year in 1928 than in 1927, the slightly higher rate, then, being due to a further reduction in the number of births, as there were 240 fewer births in 1928 than in 1927. The birth rate for 1928 was 20.6, the lowest birth rate so far reported for the city. If we separate the colored births from the general group, we find that the birth rate for the white population is 18.4. This indicates a continuing lower birth rate.

The infant mortality is, of course, not uniform through the city. It is much lower in some wards and higher in others. The lowest infant mortality rate is found again in Ward No. 9, 33.3, which is 3.4 lower than it was in 1927. The highest rate is found in Ward No. 2, where it was 145.9, the next

highest in Ward No. 7, where it was 126.2, and the next in Ward No. 15, where it was 106.7. Ward No. 2 is made up of a rooming house population where, on account of the rapid shifts, it is impossible to make a really accurate infant mortality rate. In 1927 the highest rate was reported in Ward No. 3, where it was 107.1. We are pleased to find that this year the rate in this ward was but 92. More than one half of the births in this ward are colored. In spite of the continuous supervision of newborn colored babies, the rate among the colored is more than 50% higher than that of the city as a whole.

One interesting factor in the births is that the number and percentage of non-resident births are constantly increasing. In 1928 there were 1,431 non-resident births which is almost 15% of the total births. If we omit from our calculations non-resident births and the deaths of non-resident infants, the infant mortality rate would be 68. It would seem desirable to report infant mortality rates both ways, so that proper comparison could be made between cities which have a smaller or larger percentage of non-resident births.

The following wards have infant mortality rates lower than the average for the city: Ward No. 8, Ward No. 9, Ward No. 11, Ward No. 12, Ward No. 13, and Ward No. 16.

Neo-Natal Mortality

The neo natal mortality, that is, the deaths under one month, is exactly the same as it was in 1927, 34.8. This confirms the observation which has been made in recent years that the neo natal mortality rate is a practically constant one and has been for a number of years. The importance of this group of deaths will be appreciated when it is pointed out that they represent more than one-half of the deaths for the entire year. Formerly the deaths under one month represented only one-third of the deaths under one year. This change in pro-

portion is not due to any increase in the deaths under one month but rather to a decrease in the deaths over one month and under one year.

Of the deaths which occurred in the first month, 130 occurred during the first day, that is, almost as many deaths occurred in the first day of life as occurred in the next 29 days. Fifty-eight or again a little less than one-half of the deaths which occurred in the first day took place in the first two hours. These facts clearly indicate that the peak of the mortality is in the first hours, days, and weeks of life and that there is very little hope of a further decrease in the infant mortality rate unless we succeed in preventing these early deaths.

The view has been held and quite naturally, that an increase in the percentage of women delivered in hospitals would be an effective way of reducing not only the maternal mortality but the deaths of infants during the first days associated with the character of delivery and the care given the infants after birth. We have had occasion to point out in previous reports that in spite of the rapid increase in hospitalization in Newark, as in other cities this reduction in maternal and neo-natal mortality has not taken place. In 1928 there was a further increase in the percentage of women delivered in hospitals. Five thousand three hundred ninety babies were born in hospitals, which is more than one-half of the total births and 6,412 babies were born at home, while in 1927, 4,995 babies were born in hospitals and 5,047 at home.

Colored Mortality

The infant mortality rate for the colored was 137 which is 3.5 lower than in 1927 but 6.6 higher than in 1926. There were 148 deaths under one year among the colored, of which 85 occurred in the first month, that is, considerably more than one-half occurred in the first month. This fact again indi-

cates the great difficulty of accomplishing any real reduction in the colored infant mortality as these deaths are bound up with the social and economic conditions surrounding the colored mother, the kind of obstetrical and post-partum care and the care given to the newborn infant.

The neonatal rate for colored infants was 78.7, which is 23.2% higher than the entire infant mortality rate for the city, that is, the rate for colored infants during the first month exceeds the death rate for white infants for the year. If we subtract the neonatal rates for both colored and white we find that the death rate for white infants between the ages of one month and one year is 29.1, while for the colored it is 58.3, clearly indicating that the great amount of work which is being done to instruct colored mothers in the care of their infants is yielding results among the infants where the factors of obstetrical care and general physical environment are not such all-determining items in the result.

The total colored births have not actually increased but they represent a larger percentage of the total births because the white births have decreased. The colored births represent 11% of the total births.

It can easily be appreciated by those familiar with social conditions that this exceedingly high neonatal and infant mortality among the colored infants represents social and economic and housing conditions which seriously interfere with the health and well being of the entire colored population. There is need for a much more vigorous campaign for ameliorating the conditions under which the colored live and the care which is given to their children.

Causes of Death Under One Year

The causes of death under one year have remained approximately the same as they were in 1927. It is very interesting

to note that out of the total number of 626 deaths only 68 were ascribed to diarrhoeal diseases. The progress which has been made in this cause of death among infants can be appreciated only by pointing out that ten years ago there were 273 deaths ascribed to this cause.

While there has been a reduction in the number of cases from this cause of death, it is important to point out that the deaths from early infancy, congenital debility, and prematurity are practically the same from year to year. This result is what we would expect from our statement that there has been practically no reduction in the neo-natal mortality.

Perhaps the best way to appreciate what has been accomplished in the reduction of infant mortality is to compare the summer mortality for 1927-1928 with that of a decade ago. We find that where formerly there was a very sharp rise in the number of infant deaths in July and August, today there is actually a depression or valley, that is, it is safer for infants in Newark during July and August than in any other time of the year.

Nurses' Activities

In 1928, 4,236 newborn infants were placed under supervision, making a total of 7,593 who received supervision during the year. The nurses made 51,189 visits to these babies and the mothers made 16,950 visits to the Baby Keep-Well Stations, where their babies were weighed and examined and where the mothers received advice and instruction from both doctors and nurses. There was an increase of over 3,000 visits made to the mothers and an increase of over 3,000 visits made by mothers to the stations.

The value of child hygiene work should be judged by the amount of education and instruction given to the mothers rather than by any real reduction in infant mortality rates. We cannot help but feel that this constant visiting of nurses

to mothers and mothers bringing their infants for more than 16,000 visits to the Baby Keep Well Stations must have enormous value in the care, feeding, management, and training of our infants and children.

Prevention of Blindness

The Division has continued its service to prevent blindness through the prevention of ophthalmia and its early detection and proper treatment. During the year 54 cases of ophthalmia were reported, of which 9 were found to be of gonorrheal origin, a considerable increase over previous years. In 1927, of 52 cases reported, 6 were of gonorrheal origin.

Careful supervision has been maintained over the midwives to make sure that silver nitrate is instilled in the eyes of newborn babies. We are very happy to be able to report that this is the eighth year that no case of blindness resulted. According to our records every infant has been completely cured. This result alone can be considered adequate foundation for complete patrolling of infants by child hygiene nurses.

Maternal Mortality

The maternal mortality rate for 1928 was 6.7. The total number of puerperal deaths was 10, 7 less than it was in 1927. Midwives were in attendance at any time on 9 of these deaths which presents a maternal mortality rate of 6.7 for the ones as a whole and 2.5 for the 11 mothers attended by midwives.

Midwives

The midwives attended 1,996 births in 1928, which again shows a reduction over previous years, as in 1927 they attended 2,338 births. Ten years ago midwives attended 5,338 births, which was 46% of the total births. In 1928 they attended 20.3% of the total births.

While the supervision of midwives was initiated in New Jersey by this Division, it has now been successfully carried on by the State Department of Health, as part of the general supervision of midwives. Of course, the closest co-operation between the two Departments exists. As has been stated in previous reports, the midwives have helped the Division very actively by reporting within twenty-four hours their births. This system has met with considerable success, as practically 80 to 90% of the births delivered by midwives are so reported.

Boarding Homes

In 1928, 79 boarding homes were licensed. The number of active licensed boarding homes at December 31, 1928 was 57. There has been a considerable reduction in the number of boarding homes. One hundred seventeen children were placed in these homes during the year, which is 10 more than in 1927 but 32 less than in 1926. At the end of the year there were 114 children in boarding homes.

While the licenses are issued by this Department, its action is determined by investigations and reports made by a number of departments and private societies. A nurse visits the home to determine if the boarding home seems acceptable from a purely physical standpoint. Inquiry is then made from the Tuberculosis Division and Venereal Disease Bureau to learn if any member of the family is known to them or has any communicable disease. The home is then inspected and thoroughly investigated by a representative of one of the social agencies according to the region of the boarding home applicant. When these various phases have been completed, each case is referred to the Bureau of Combustibles and Fire Risks for approval.

Unmarried Mothers

One hundred seventy-two illegitimate births were reported to the Vital Statistics Division in 1928, of which 10 were

stillbirths. In 1927, 125 illegitimate births were reported. 1928 shows a considerable increase in the number of reported illegitimate births. From previous experience we have reason to believe that about 50 additional births are not reported to the Department. It would appear, then, that the percentage of illegitimate births of the total births has increased.

Twenty-five unmarried mothers with their infants were cared for during 1928 at the Convalescent Home for Nursing Mothers. In addition, the Home sheltered 4 expectant mothers, 6 married women, 30 children, and 5 babies. 2,470 ounces of breast milk were sold, netting \$370.50 for the girls who gave the milk.

Extension

During the year additional Baby-Keep Well Stations have been opened at the West Side Park Presbyterian Church, 593 Eighteenth Avenue, at 362 South Tenth Street, and at the Elliott Street School. At the end of 1928 there were 16 Stations in all with 26 conferences a week.

STATISTICAL SUMMARY

1928 Infant Mortality Rate

A. Deaths under one year per 1,000 births	63.9
B. Deaths under one month per 1,000 births	34.8
C. Stillbirths per 1,000 living births	39.1
D. Puerperal deaths per 1,000 deliveries	6.7
E. Total births	9,802
Total births attended by physicians	7,812
Total births attended by midwives	1,990
Total deaths under one year	626
Total deaths under one month	341
Total stillbirths	383
Total puerperal deaths	69
Attended by midwives at any time	9
Attended by physicians and hospitals only	60

1928

Wards	Total Births	Total Colored Births	% Total Births Colored	Midwives Births	% Total Births Del'd by Midwives	Total Deaths Under One Year	Infant Mortality Rates
1.	660	47	7.1%	259	39.2%	48	72.7
2.	185	51	27.6%	13	7.0%	27	145.9
3.	587	330	57.9%	80	13.6%	54	92.0
4.	107	34	31.8%	22	20.6%	9	84.1
5.	444	39	8.8%	212	47.7%	31	69.8
6.	349	55	15.8%	71	20.3%	27	77.4
7.	325	119	36.6%	60	18.5%	41	126.2
8.	710	44	6.2%	146	20.6%	43	60.6
9.	840	38	4.5%	36	4.3%	28	33.3
10.	588	76	12.9%	296	50.3%	46	78.2
11.	379	28	7.4%	53	14.0%	18	47.5
12.	473	15	3.2%	197	41.6%	29	61.3
13.	947	8	.8%	160	16.9%	45	47.5
14.	725	87	12.0%	278	38.3%	53	73.1
15.	300	69	23.0%	41	13.7%	32	106.7
16.	752	21	2.8%	66	8.8%	38	50.5
Non-residents	1431	19	1.3%	0	—	57	39.8
Total	9802	1080	11.0%	1990	20.3%	626	63.9

DEATHS UNDER ONE YEAR BY CAUSES 1916-1928

YEARS	Measles	Bronchitis	Pneumonia	Meningitis	Diarrhoea	Other Contagious Diseases	Early Infancy Congenital Debility Prematurity	All Others	Total
1916	23	55	122	24	196	86	435	85	1,026
1917	0	72	121	26	250	50	430	86	1,035
1918	33	84	156	30	273	83	442	112	1,213
1919	2	42	87	24	244	27	345	90	862
1920	16	57	143	19	191	66	402	100	994
1921	5	38	83	12	178	27	403	91	837
1922	14	44	128	11	153	22	362	88	822
1923	15	32	94	10	105	21	376	103	756
1924	4	38	106	17	115	24	356	86	746
1925	3	26	99	11	105	23	376	103	746
1926	17	18	142	5	102	16	383	70	753
1927	0	13	91	10	70	28	357	67	636
1928	11	8	97	12	68	19	356	55	626
Average for 13 years	11	41	112	16	158	38	386	87	850

NURSES' ACTIVITIES 1919-1928

YEARS	Super'd Babies Born Dur'g year	Total No. of Super'd Babies	Nurses' Visits to Homes	Mothers' Visits to Consult. Stations	Eye Smears Taken
1919		3,706	30,783	3,920	27
1920		3,011	32,591	3,963	69
1921		4,553	37,095	6,625	55
1922	1,265	5,520	40,331	7,768	107
1923	1,303	7,268	43,308	8,173	87
1924	4,306	7,765	45,254	8,354	71
1925	4,610	7,490	42,477	7,801	32
1926	3,883	7,306	39,905	8,885	32
1927	4,318	7,400	47,957	13,468	42
1928	4,736	7,593	51,189	16,950	56

PUERPERAL DEATHS 1916-1928

Years	Total Number Puerperal Deaths Per City	Midwives in Attendance at any Time	Rate per 1 000 Deliveries Per City	Rate per 1 000 Births Attended By Midwives	Total Number Births Per City	Total Number Births Attended By Midwives	% of Births Attended By Midwives	Stillbirth Rate per 1 000 Living Births
1916	26	6	2.2	1.0	11,446	5,582	48.7%	41.7
1917	29	6	2.4	1.0	11,850	5,695	48.0%	38.2
1918	53	10	4.5	1.8	11,601	5,338	46.0%	46.1
1919	56	8	4.9	1.5	11,315	5,148	45.4%	42.0
1920	76	7	6.4	1.4	11,734	4,712	40.1%	38.2
1921	74	10	6.3	2.2	11,705	4,470	38.1%	43.0
1922	58	14	5.2	3.7	10,993	3,764	34.2%	37.4
1923	52	12	4.6	3.3	11,111	3,552	31.9%	45.1
1924	87	10	7.5	3.1	11,449	3,261	28.5%	43.8
1925	87	20	7.7	7.1	10,852	2,799	25.8%	42.9
1926	71	11	6.5	4.4	10,460	2,502	23.9%	41.8
1927	76	8	7.3	3.4	10,042	2,338	23.3%	43.1
1928	69	9	6.7	4.5	9,802	1,990	20.3%	39.1

BOARDING HOMES

1928

Number of active licensed homes on December 31, 1928.....	57
Number of active licensed nurseries on December 31, 1928.....	7
Children boarded during year.....	117
Children in homes at end of year.....	114
Children taken from homes during year.....	91
Sick children	8
Died in boarding homes.....	2

Special Tables of Vital Statistics

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR—YEAR 1928

CAUSES	Yel- low	Col- ored	White	Total deaths	Males	Fe- males	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes	10	787	4948	5735	3149	2586	676	156	186	968	245	304	1002	1794	1422
Infantile Paralysis			4	4	4			2	1	3	1	1	3		
Typhoid Fever			5	5	1	4					1				
Measles		7	40	47	30	17	11	20	10	41	6				
Scarlet Fever			6	6	5	1			2	2	4				
Whooping Cough		4	17	21	11	10	10	7	4	21					
Diphtheria		18	77	95	51	58	5	14	45	64	30				1
Influenza		5	31	36	22	14	1	1	1	3	3	2	11	11	6
Epidemic Meningitis of Cerebro Spinal		4	19	14	6	8	4		3	7	1	2	4		
Other Epidemic Diseases		2	3	5	2	3	3	1		4					1
Tuberculosis, Lungs, Consumption	1	92	274	366	238	128		1	2	3	6	82	158	102	15
Tuberculosis Meningitis		9	10	19	10	9	2	1	6	9	5	1	2		
Other Tuberculosis		4	13	17	2	5			3	3	9	2	10	3	
Cancer, Malignant Tumors		26	465	491	218	273			2	2	4	8	70	245	162
Simple Meningitis		4	31	35	19	16	6	1	3	10	5	5	8	6	1
Apoplexy, Softening of the Brain	1	30	325	356	164	192					2	19	138	197	
Organic Heart Disease	3	102	897	1002	535	467	2	2	4	8	29	40	149	379	307
Brucellosis		3	24	27	13	15			2	11	2		2	5	7
Pneumonia, Lobar	1	91	112	404	232	167	32	39	28	99	16	19	112	110	48
Pneumonia, Broncho	1	47	180	228	138	90	65	32	15	112	9	5	13	38	51
Other Respiratory Diseases	1	10	63	74	48	26	3	3	2	8	2	1	12	29	22
Diseases of the Stomach (Cancer exc'd)		5	35	40	27	13		1	1	2		2	10	19	7
Diarrhoeal Diseases (under 5 years)		10	68	78	41	37	68	6	4	78					
Appendicitis and Typhlitis		7	87	94	50	44	1	1	7	9		10	34	18	3
Hernia, Intestinal Obstruction		11	46	57	19	38	4	1	1	6	1	2	9	22	7
Cirrhosis of Liver		1	46	47	38	9							8	28	11
Bright's Disease and Nephritis		35	263	298	154	145			3	3	7	8	49	119	112
Diseases of Women, not Cancer		12	11	23		23						4	13	5	1
Puerperal Septicemia		3	11	14	14							7	7		
Other Puerperal Diseases		5	44	49		49						12	21	16	
Congenital Deafity and Malformation		81	277	358	203	153	356	2		158					
Old Age		7	50	57	28	29								1	56
Accident		33	321	354	264	90	4	9	16	29	46	29	93	99	58
Homicide		13	16	29	19	10	1			1	1	7	18	2	
Suicide	1	1	80	82	62	20			2	3		6	23	43	10
Undeclared Causes			4	4	2	2	1							1	
All Other Causes	1	105	793	899	472	427	39	11	19	69	37	45	144	355	249

The death rate for the year was 11.6 per 1,000 of population, as against 10.9 for the previous year. The present population of Newark is estimated for these calculations at 474,000. The death rate for the year of 1927 was 10.9, estimated population 467,000. Rate does not include 223 deaths at Soho and Essex Mountain Sanatorium.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY MONTHS FOR 1928

Including Deaths at Soho and Verona Hospitals and Non-Residents

CAUSES	Rates Per 100,000 Population	Total	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Total All Causes		5735	478	541	568	520	565	470	379	419	385	441	414	545
Infectious Paratyphoid	0.8	4												
Typhoid Fever	1.1	5				1			1	1	1	1	1	
Malaria														
Smallpox														
Measles	9.9	47	2	6	11	14	8	3	3				1	
Scarlet Fever	1.3	6		1	1	1	1		1					
Whooping Cough	4.6	21	1	4	1	4	2	2	1	4				
Diphtheria	20.0	95	7	8	8	11	7	18	6	4	3	1	7	15
Influenza	7.6	36	2	2			7	1		1	1	4	3	15
Epidemic Meningitis Cerebrospinal	3.0	14		1		4	5			1	1			2
Other Epidemic Diseases	1.1	5	1				1							1
Tuberculosis (all forms) Consumption	77.2	366	23	34	61	48	38	33	34	34	24	34	29	24
Tuberculosis Malignant	4.0	19	1		3			5	2	4		1	3	
Other Tuberculosis	5.7	27	1	2	3	5	2	3	1	3	3	2	1	1
Cancer Malignant Tumors	103.6	491	41	44	48	38	53	41	31	39	44	43	30	37
Stomach Malignant	7.4	35	1	2	6	8	3	2	3	1		4	2	3
Arteriosclerosis of the Brain	75.1	356	33	35	36	33	26	31	22	23	31	24	31	36
Organic Heart Disease	211.4	1002	94	92	95	88	111	82	52	76	60	80	68	104
Bronchitis	5.7	27	1	5	4	5	3			1	1	3	2	3
Pneumonia (all forms)	85.2	404	37	47	54	46	54	27	17	17	13	21	25	52
Pneumonia Bacterial	48.1	228	25	29	34	28	37	13	6	12	10	9	6	21
Other Infectious Diseases	15.6	71	10	8	6	7	3	4	4	7	7	6	8	9
Diseases of the Circulatory System (exclusive of Cancer)	8.4	41		1	6	2	5	3	3		6	2	7	1
Diarrhoeal Diseases (under 5 years)	16.1	78	3	7	5	3		4	8	11	13	13	4	7
Appendicitis and Typhlitis	19.8	94	6	7	10	8	8	10	7	8	10	4	4	12
Hernia, Intestinal Obstruction	9.9	47	4	7	3	4	2	1	3	6	4	5	3	5
Cirrhosis of Liver	9.9	47	3	5	1	4	2	3	4	6	3	8	6	2
Biliary Disease and Nephritis	61.9	298	25	32	34	23	24	21	24	19	15	21	23	32
Diseases of Women (exclusive of Cancer)	4.9	23		3	3	2	3	7	3					
Puerperal Septicæmia	3.0	14				4	1		1		1	1	2	1
Other Puerperal Diseases	16.1	79	5	4	9	2		1	4	9	2	4	3	5
Constitutional Debility and Malformation	75.5	358	34	34	42	25	27	29	28	27	27	29	29	27
Old Age	12.0	57	4	5	5	4	8	3	3	6	8	4	4	3
Accidents	74.7	354	34	30	32	28	39	27	27	32	25	29	28	24
Homicide	6.1	29	2	2	2	1	1	2	2	3	3	6	4	1
Suicide	17.3	82	6	7	5	7	8	10	6	7	4	7	5	10
Ill-Defined Causes	0.8	4		1		1				1				
All Other Causes	189.7	899	70	74	93	81	79	76	73	67	61	76	70	79
Rate per 1,000 Population			11.6	11.7	13.2	14.4	12.4	13.5	11.2	9.2	10.2	9.5	10.9	13.1

DEATHS IN INSTITUTIONS—1928

St. Michael's	211
St. James'	88
Newark Memorial	113
Beth Israel	270
Newark Maternity	18
St. Barnabas'	98
Presbyterian	49
Clinton Private	10
Lincoln Private	20
Essex General	15
Soho	119
Essex Mountain	106
Home for Aged	44
Women and Children	43
Babies' Hospital	71
Eye and Ear Infirmary	40
Kenney Memorial	12
Alms House	58
Newark Private	13
Home for Crippled	12
Convalescent	4
House of Good Shepherd	2
Baptist Home	5
Home for Incurables	17
Arthur Pitney	5
Dr. Coe's Hospital	2
Dr. Wright's Hospital	7

GENERAL TABLE No. 1, 1928

Deaths from all causes by Wards, Age and Sex. Table includes Newark residents dying at Soho and Verona Sanatoria and does not include deaths of non-residents in Newark.

AGES	1st Ward	2nd Ward	3rd Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	13th Ward	14th Ward	15th Ward	16th Ward	Total
Under 1 Year of Age—																	
Males	32	17	31	5	16	13	19	25	22	25	12	20	31	30	21	17	336
Females	8	5	3	5	14	14	23	14	6	31		8	14	24	11	27	335
Between 1 and 4 Years—																	
Males	10	6	15	1	12	9	11	6	12	11	7	15	11	22	8	9	165
Females	13	1	9	3	10	6	1	13	8	13	3	10	16	13		6	152
Between 5 and 9 Years																	
Males	5	2	6	2	4	4	5	2	4	11	3	9	6	7	2	2	78
Females	8	2	5		1	5	5	3	6	6	2	1	3	9	5	3	64
Between 10 and 14 Years																	
Males	5		1	2	4	3	3	5	3	3			3	5	2	2	44
Females	5				3			1	1	2	2	1	3	4			30
Between 15 and 19 Years																	
Males	4	4	2		5	6	2	3	3	4	1	1	7	4	1	2	49
Females	6		6			4		5	7		2	3	5	5	1	9	57
Between 20 and 24 Years																	
Males	6	6	5	3			2	4	6	5	2	1	5	5	2	1	67
Females	8	1	12		3		4	6	5	4	3		8	6		9	82
Between 25 and 29 Years																	
Males	2	3	5	4	6		3	7	7	4	3	1	7	6		5	63
Females	2		12	3	7	2	8	2	9	6	6	4	8	4	3	5	91

GENERAL TABLE No. 1, 1928—Continued

Deaths from all causes by Wards, Age and Sex. Table includes Newark residents dying at Soho and Verona Sanatoria and does not include deaths of non-residents in Newark.

AGE	1st Ward	2nd Ward	3rd Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	13th Ward	14th Ward	15th Ward	16th Ward	Total
Between 30 and 34 Years—																	
Males	5	3	14	4	9	1	6	4	12	6	2	6	7	7	4	11	101
Females	7	3	22	4	3	4	8	5	10	2	3	2	9	5	3	3	83
Between 35 and 39 Years—																	
Males	7	5	22	10	9	1	8	13	12	7	4	5	10	8	4	8	133
Females	4	6	22	2	10	3	3	12	12	4	5	1	9	9	6	5	113
Between 40 and 44 Years—																	
Males	9	8	18	9	12	4	10	15	12	10	5	20	16	13	4	12	177
Females	4	8	10	4	6	3	6	9	18	7	7	7	12	13	3	8	125
Between 45 and 49 Years—																	
Males	15	11	15	13	13	7	9	15	16	13	6	12	17	13	8	17	200
Females	7	15	12	2	3	9	4	19	11	6	9	1	13	9	2	13	135
Between 50 and 54 Years—																	
Males	13	9	29	20	9	12	14	21	20	10	12	15	24	14	5	22	249
Females	4	10	12	2	3	12	9	16	16	12	9	3	15	8	4	12	147
Between 55 and 59 Years—																	
Males	11	7	13	3	9	14	14	30	22	13	10	14	29	20	11	24	254
Females	8	8	13	5	3	8	5	18	15	5	18	5	25	14	6	20	176
Between 60 and 64 Years—																	
Males	9	9	25	9	12	14	13	18	31	9	11	12	25	14	5	28	244
Females	14	4	13	4	3	14	2	18	28	8	9	8	29	10	13	18	195

GENERAL TABLE No. 1, 1928—Continued

Deaths from all causes by Wards, Age and Sex. Table includes Newark residents dying at Soho and Verona Sanatoria and does not include deaths of non-residents in Newark.

AGES	1st Ward	2nd Ward	3rd Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	13th Ward	14th Ward	15th Ward	16th Ward	Total
Between 65 and 69 Years—																	
Males	10	7	9	13	7	11	5	21	31	9	12	10	28	12	7	29	221
Females	4	6	14	5	3	16	13	18	15	11	9	7	22	11	7	23	184
Between 70 and 74 Years—																	
Males	5	11	10	11	8	4	5	19	15	9	10	8	19	9	4	17	164
Females	10	9	8	2	3	14	4	33	18	6	20	2	19	7	5	12	172
Between 75 and 79 Years—																	
Males	4	11	6	7	1	9	4	17	8	3	4	6	10	7	2	7	106
Females	4	7	10	2	2	10	4	26	14	6	15	6	19	14	8	21	168
Between 80 and 84 Years—																	
Males		3	3	5		6	2	13	8	1	8	2	6	3	4	6	70
Females			3	1	4	8	1	15	6		9	7	11	3	1	11	80
Between 85 and 89 Years—																	
Males	3	3	1		1	1	2	4	6		4	2		1	1	2	31
Females	2		5	1	1	3	1	8	8	1	6	1	2			4	41
Ninety Years and Over																	
Males		1	1					2	3		3		1	1			12
Females	2		3	1	1	3		5	1	2	3	1	1			1	24
TOTALS																	
Males	155	126	234	131	144	125	135	250	253	153	119	160	262	201	95	221	2764
Females	143	86	225	48	85	143	100	254	214	123	147	77	243	168	92	206	2354
GRAND TOTALS	298	212	459	179	229	268	235	504	467	276	266	237	505	369	187	427	5118

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR FIRST WARD, 1928

CAUSES	Yellow	Colored	White	Total deaths	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total, All Causes		32	260	292	155	137	48	22	20	90	21	19	32	81	49
Botulism, Paralysis															
Typhoid Fever			1	1		1						1			
Malaria															
Scarlet Fever			6	6	5	1	2	3	1	6					
Measles			1	1	1						1				
Whooping Cough			1	1	1										
Diphtheria		1	18	19	7	12	2	5	10	17				1	
Infantile				1	1										
Enteric Meningitis-Cerebro Spinal															
Other Epidemic Diseases															
Tuberculosis of Lungs, Consumption		2	19	21	9	19		1		1		8	6	5	
Tuberculosis Meningitis		1	1	1	1						1				
Other Tuberculosis			1	1	1						1				
Cancer, Malignant Tumor		4	11	15	7	8						1		8	6
Simple Meningitis			2	2		2	1			1					
Apoplexy, Softening of the Brain		2	23	25	12	13						1	2	14	11
Brain, Heart Disease		4	38	42	18	24					3	1	2	24	12
Heart Disease			3	3	2		2						1		
Pneumonia, Lobar		2	20	22	9	13	3	4	3	10	3	2	1	4	2
Pneumonia, Bronchi			16	16	12	4	4	4		8	2			3	3
Other Respiratory Diseases			1	1	1								1		
Diseases of the Stomach, Cancer, etc.			1	1	1								1		
Diseases of the Digestive System under 5 years			12	12	8	4	1			1					
Appendicitis and Typhilitis		1	5	6	5	1					1	1	1	2	1
Hernia, Intestinal Obstruction			2	2	1	1	1			1				1	
Cirrhosis of Liver			2	2	2									1	1
Bright's Disease and Nephritis		1	11	12	7	5					2	1	2	2	5
Diseases of Women (not Cancer)			2	2		2						1	1		
Puerperal Septicæmia			1	1		1						1			
Other Puerperal Diseases			3	3		3							3		
Congenital Debility and Malformation		3	15	18	13	5	18			18					
Old Age															
Accident		2	11	13	8	5		2	5	7	1	1	1	2	11
Homicide		1	1	2	1	1							2		
Suicide			1	1	1	1								1	
Undefined Causes		1	1	1	1	1					1				
Unknown Causes		7	31	38	22	16	3	2	1	6				17	7

The death rate for the first ward was 8.0 per 1,000 of population as against 7.9 for the previous year. The present population of the first ward is estimated for these calculations at 34,602.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

SECOND WARD, 1928

CAUSES	Yellow	Colored	White	Total deaths	Males	Females	Under 1 Year	1 and Under 5	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes		61	158	219	128	91	7	5	12	6	4	1	36	7	51
Infantile Paralysis															
Typhoid Fever															
Malaria															
Smallpox															
Measles		1	1	2	1	1	1	1		2					
Scarlet Fever															
Whooping Cough			4	4	4				3	3	1				
Diphtheria															1
Influenza		1	1	2		1									
Epidemic Meningitis (Cerebro Spinal)		1	1	2		1						1			
Other Epidemic Diseases															
Tuberculosis of Lungs (Consumption)		7	11	18	13	5							4	5	
Tuberculous Meningitis															
Other Tuberculosis		2	1	3	2	1						1		2	
Cancer Malignant Tumor		2	18	20	9	11							4	12	4
Simple Meningitis		3		3	1	2	2			2			1		
Apoplexy Softening of the Brain		2	7	9	1	8								5	4
Organic Heart Disease		7	26	33	18	15						1	6	11	15
Bronchitis															
Pneumonia, Lobar		6	10	16	14	2	1			2	1		5	6	2
Pneumonia, Broncho		4	8	12		5	3			5				1	6
Other Respiratory Diseases			1	1	1									1	
Diseases of the Stomach (Cancer exc'd)															
Diarrhoeal Diseases under 5 years			1	1	1		1								
Appendicitis and Typhlitis			1	1		1								1	
Hernia, Intestinal Obstruction			1	1		1									1
Cirrhosis of Liver			1	1	1									1	
Bright's Disease and Nephritis		4	11	15	11	4						1		11	3
Diseases of Women (not Cancer)						2						2			
Puerperal Septicaemia															
Other Puerperal Diseases		1		1		1						1			
Congenital Deformity and Malformation		9		16	8	8	16								
Old Age		1	1	2	1	1									
Accident		2	11	13	10	3						1		4	4
Homicide		2	2	4	1	3									
Suicide			5	5	3	2						2		3	
Ill-defined Causes			2	2	2								1	1	
All Other Causes		4	28	32	20	12	3			3		1	6	13	9

The death rate for the second ward was 11.2 per 1,000 of population as against 10.1 for the previous year. The present population of the second ward is estimated for these calculations at 19,454.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

THIRD WARD, 1928

CAUSES	Yellow	Colored	White	Total	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and over
Total All Causes		240	213	453	230	223	54	18	16	88	21	27	112	133	72
Infantile Paralysis															
Typhoid Fever			1	1		1							1		
Malaria															
Smallpox															
Measles		1	3	4	3	1		2	1	3	1				
Scarlet Fever															
Whooping Cough		1		1		1		1		1					
Diphtheria		4	2	6	3	3		1	5	6					
Influenza		2	1	3	2	1							2	1	
Epidemic Meningitis (Cerebro Spinal)		1		1		1			1	1					
Other Epidemic Diseases		1		1		1	1			1					
Tuberculosis of Lungs (Consumption)		27	15	42	25	17				1	9	21	11		
Tuberculosis Meningitis		3		3	2	1			1	1					
Other Tuberculosis		1		1	1									1	
Cancer, Malignant Tumor		8	21	29	12	17							7	15	7
Simple Meningitis															
Apooplexy Softening of the Brain		5	12	17	8	9							2	5	10
Organic Heart Disease		30	46	76	35	41		1		1	6	3	14	35	17
Hemiplegia		1	1	2	1	1			1				1		1
Pneumonia, Lobar		28	13	41	19	22	3	4	3	10	3	2	17	5	4
Pneumonia, Broncho		15	5	20	9	11	9	3	2	14			1	1	2
Other Respiratory Diseases		2	6	8	7	1							1	3	4
Diseases of the Stomach (Cancer exc'd)		2	4	6	5	1									
Diarrhoeal Diseases (under 5 years)		3		3	1	2	3			3				5	
Appendicitis and Typhilitis		3	6	9	6	3					2		6	1	
Hernia, Intestinal Obstruction		4		4	1	3						1	2	1	
Cirrhosis of Liver			3	3	3									3	
Bright's Disease and Nephritis		13	11	24	12	12						1	4	12	7
Diseases of Women (not Cancer)		4		4		4							3	1	
Puerperal Septicemia		1		1		1							1		
Other Puerperal Diseases		2		2		2						2			
Congenital Deformity and Malformation		27	6	33	20	13	31	2		33					
Old Age		1	5	6	4	2								1	5
Accident		7	15	22	11	11	1	1		2	3	5		3	4
Homicide		6		6	5	1						2	4		
Suicide			5	5	5								1	2	2
Ill-defined Causes															
All Other Causes		37	32	69	30	39	6	3	2	11	3	3	18	25	9

The death rate for the third ward was 11.7 per 1,000 of population, as against 12.2 for the previous year. The present population of the third ward is estimated for these calculations at 38,614.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

FOURTH WARD, 1928

CAUSES	Yel- low	Col- ored	White	Total Deaths	Males	Fem- ales	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes	8	25	144	177	131	46	9	3	1	13	5	4	39	69	47
Infantile Paralysis															
Typhoid Fever															
Malaria															
Smallpox															
Measles															
Scarlet Fever															
Whooping Cough			1	1		1	1			1					
Diphtheria															
Influenza															
Epidemic Meningitis (Cerebro Spinal)		1		1	1		1			1					
Other Epidemic Diseases															
Tuberculosis of Lungs Consumption		3	14	17	12	5							9	7	1
Tuberculosis Meningitis															
Other Tuberculosis															
Cancer Malignant Tumor		1	8	9	5	4							1	4	4
Simple Meningitis		1	6	7	4	3							1	1	5
Apoplexy Softening of the Brain		2	40	38	26	9						1	5	14	15
Organic Heart Disease	3														
Bronchitis															
Pneumonia Lower	1	3	14	18	15	3		2		2			6	8	2
Pneumonia Broncho	1		7	8	6	2							1	3	4
Other Respiratory Diseases	1			1	1									1	
Diseases of the Stomach Cancer exc'd															
Diarrhoeal Diseases (under 5 years)			1	1	1		1			1					
Appendicitis and Typhlitis			2	2	1	1			1	1		1			
Hernia Intestinal Obstruction		1	1	2		2						1		1	
Cirrhosis of Liver			1	1	1									1	
Bright's Disease and Nephritis		1	9	10	7	3					1		3	5	1
Diseases of Women (not Cancer)															
Puerperal Septicemia			1	1		2						1	1		
Other Puerperal Diseases			2	4	4	2	5	1		6					
Congenital Debility and Malformation															
Old Age															
Accident		5	22	27	23	4					2		7	13	5
Homicide															
Suicide	1		6	7								1	2	3	1
Ill defined Causes															
All Other Causes	1	4	17	22	17	5	1			1	1		3	8	9

The death rate for the fourth ward was 10.2 per 1,000 of population, as against 13.1 for the previous year. The present population of the fourth ward is estimated for these calculations at 14,228.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR FIFTH WARD, 1928

CAUSES	Yel- -w	Col- -d	White -t	Total -t	Males -t	Fem- -ales	Under -1	1 and -Under	2 and -Under	5 -Under	5 -to	15 -to	25 -to	45 -to	65 -and -Over
Total, All Causes	1	35	192	228	143	85	31	13	8	52	12	16	59	60	29
Infantile Paralysis															
Typhoid Fever															
Malaria															
Scarlet															
Diphtheria															
Whooping Cough															
Dysentery															
Influenza															
Pneumonia, General															
Pneumonia, Lobular															
Tuberculosis, Consumptive															
Tuberculous Meningitis															
Other Tuberculosis															
Cancer, Malignant Tumor															
Simple Meningitis															
Apoplexy, Stroke, Cerebral Hemorrhage															
Organic Heart Disease															
Infarction															
Pneumonia, Focal															
Pneumonia, Bronchopneumonia															
Other Respiratory Diseases															
Diseases of Stomach and Intestines															
Diseases of Lungs, under 5 years															
Arteriosclerosis, Thrombosis															
Hypertension, Cerebral															
Stomach and Intestines															
Bright's Disease and Nephritis															
Diseases of Women and Children															
Puerperal Septicæmia															
Other Puerperal Diseases															
Congenital Debility and Malformation															
Old Age															
Accident															
Homicide															
Suicide															
Ill-defined Causes															
All Other Causes															

The death rate for the fifth ward was 9.8 per 1,000 for the population of 23,861 in 1928. The present population of the fifth ward is estimated for these calculations at 23,861.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

SIXTH WARD, 1928

CAUSES	Yel- low	Col- ored	White	Total	Males	Fem- ales	Under 1 Year	1 and Under 5	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes	27	75	29	131	146	146	27	6	9	42	14	11	19	97	88
Infantile Paralysis															
Typhoid Fever															
Malaria															
Smallpox															
Measles			3	3		1	2		1	3					
Scarlet Fever															
Whooping Cough			1	1	1		1			1					
Diphtheria	1	8	9	5	4			1	5	6	3				
Influenza		2	2	1	1									1	1
Epidemic Meningitis, Cerebrospinal and Epidemic Diseases			1	1	1										
Tuberculosis, Lung, Consumptive	2	14	16	10	6				1			5	3		
Tuberculosis, Meningeal															
Other Tuberculosis		2	2	2							1				
Cancer, Malignant Tumor	1	29	30	15	15									14	14
Simple Meningitis		1	1	1										1	
Anaplexy, Softening of the Brain	3	10	13	4	9									7	6
Organ Heart Disease		39	40	17	23							4	6	13	17
Bronchitis		1	1	1		1									1
Pneumonia, Lobar		3	17	20	7	13	1	4	1	6		1	2	7	4
Pneumonia, Bronch.	2	8	10	7	3	2	2			2	1	1		4	2
Other Respiratory Diseases			5	5	3	2	1			1				1	3
Diseases of the Stomach, Cancer exclu.		1	1	1	1									1	
Diarrhoea, Diseases under 5 years		1	3	4	2		3		1	4					
Appendicitis and Typhlitis			2	2											
Hernia, Intestinal Obstruction			3	3											
Cirrhosis of Liver			2	2	2						1			1	
Bright's Disease and Nephritis			24	24	8	16								11	12
Diseases of Women, (not Cancer)															
Puerperal Septicæmia		1	1	1		1						1			
Other Puerperal Diseases			1	1		1						1			
Constitutional Defect and Malformation		2	12	14	5	9	14			14					
Old Age			1	1		1									1
Accident			11	11	7	4					5	1		3	2
Homicide															
Suicide			2	2	1	1								1	
Infected Causes															
All Other Causes		5	54	59	40	29		1		4	1	4	1	24	25

The death rate for the sixth ward was 10.2 per 1,000 of population, as against 9.4 for the previous year. The present population of the sixth ward is estimated for these calculations at 23,250.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR SEVENTH WARD, 1928

CAUSES	Yellow	Colored	White	Total	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes		77	151	228	129	99	41	5	7	53	11	10	52	64	38
Infantile Paralysis															
Typhoid Fever															
Malaria															
Smallpox															
Measles			3	3	1	2		2		2	1				
Scarlet Fever			1	1	1				1	1					
Whooping Cough															
Diphtheria		3	2	5	3	2		1	2	3	2				
Epidemic			1	1	1					1					
Epidemic Meningitis (Cerebro Spinal)		1	1	2	2		1			1			1		
Other Epidemic Diseases															
Tuberculosis of Lungs (Consumption)		16	13	29	16	8					1	3	15	4	1
Tuberculous Meningitis											2				
Other Tuberculosis		1	1	2	1										
Cancer, Malignant Tumor		2	9	11	3	8							2	7	2
Simple Meningitis															
Apoplexy - Softening of the Brain		5	4	9	5	4							1	4	4
Organic Heart Disease		8	13	21	17	1					1	9	13	18	1
Bronchitis			3	3	2	1	1			1			1	1	1
Pneumonia - Lobar		8	7	15	8	7	1	1		2			8	3	2
Pneumonia, Broncho		7	5	12	6	6	8	1		9			1	2	2
Other Respiratory Diseases			4	4	3	1									
Diseases of the Stomach - Cancer excld			1	1	1										
Diarrhoeal Diseases (under 5 years)		4	4	8	4	4	7		1	8			1		
Appendicitis and Typhlitis		1	3	4	2	2					1		1	2	
Hernia, Intestinal Obstruction		2	3	5	1	4	2		1	3				2	
Cirrhosis of Liver		1	1	2	1	1								1	
Bright's Disease and Nephritis		1	11	12	7	5							3	8	1
Diseases of Women (not Cancer)			2	2		2							1	1	
Puerperal Septicaemia		1		1		1							1	1	
Other Puerperal Diseases			4	4		4						2	2		
Concurrent Debility and Malnutrition		10	10	20	10	10	20			20					
Old Age			1	1		1									1
Accident		2	7	9	7	2					1	1	2	5	
Homicide															
Self-de			2	2	2									1	1
Ill-defined Causes			1	1	1				1	1					
All Other Causes		10	14	24	16	8	1		1	2	2	3	3	8	6

The death rate for the seventh ward was 10.2 per 1,000 of population as against 10.2 for the previous year. The present population of the seventh ward is estimated for these calculations at 19,550.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

EIGHTH WARD, 1928

CAUSES	Yellow	Colored	White	Total Deaths	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes		28	483	511	255	256	43	6	13	62	17	20	87	145	180
Infantile Paralysis			1	1	1						1				
Typhoid Fever			1	1	1						1				
Malaria															
Smallpox															
Measles		1	2	3	2	1	1			1	2				
Scarlet Fever															
Whooping Cough			1	1	1				1	1					
Diphtheria		1	4	5		5			4	4	1				
Influenza			4	4	4						1			2	1
Epidemic Meningitis (Cerebro Spinal)			1	1	1		1			1					
Other Epidemic Diseases															
Tuberculosis—Tuberc. Consumption		4	25	28	17	11					1	7	9	9	2
Tuberc. Meningitis				1		1			1	1					
Other Tuberculosis			4	4	3	1			1	1	1		1	1	
Cancer—Malignant Tumor			49	49	22	27					1		2	21	25
Simple Meningitis															
Apoplexy—Softening of the Brain			50	50	18	32								17	33
Organic Heart Disease		4	86	90	46	44						1	13	31	45
Bronchitis			1	1		1	1			1					
Pneumonia—Lobar		6	31	38	22	17		1	2	3		2	20	7	6
Pneumonia—Broncho		2	17	19	10	9	5	1	1	1			3	1	8
Other Respiratory Diseases		1	1	2	2			1		1					1
Diseases of the Stomach (Cancer exc'd)			2	2										1	
Diarrhoeal Diseases (under 5 years)			11	11	4	7	9	1	1	11					
Appendicitis and Typhitis			8	8	5	3		1			1	2	2	2	
Hernia, Intestinal Obstruction			2	2	1	1							1		
Cirrhosis of Liver			3	3	3									2	1
Bright's Disease and Nephritis		1	27	28	10	18							3	9	16
Diseases of Women (not Cancer)															
Puerperal Septicemia			2	2		2						2			
Other Puerperal Diseases			8	8		8									
Congenital Debility and Malformation		3	22	25	15	10	25			25			6		
Old Age			7	7	1	6									7
Accident		2	27	29	25	4					5	2	9	8	5
Homicide		1	5	6	4	2					1		5		
Suicide			7	7	3	4							3	3	1
Ill-defined Causes			2	2	1	1			1	1				1	
All Other Causes		3	70	73	32	41	1	1	1	3	1	2	9	30	28

The death rate for the eighth ward was 11.6 per 1,000 of population, as against 12.2 for the previous year. The present population of the eighth ward is estimated for these calculations at 35,537.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR NINTH WARD, 1928

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DEPARTMENT OF PUBLIC WORKS

CASES	White	Col.	White	Total	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
All Causes	31	18	49	67	66	66	28	7	15	48	14	12	8	161	153
Infantile Paralysis															
Typhoid Fever															
Malaria															
Scarlet Fever															
Whooping Cough															
Diphtheria															
Polio															
Brain Diseases (Cerebro Spinal)															
Other Brain Diseases															
Tuberculosis (Lungs)															
Tuberculosis (Other Organs)															
Simple Meningitis															
Apoplexy Softening of the Brain															
Organic Heart Disease															
Bronchitis															
Pneumonia, Lobar															
Pneumonia, Bronchopneumonia															
Other Respiratory Diseases															
Dysentery															
Diarrhoea															
Amoebic Dysentery															
Cholera															
Carbuncles of Liver															
Bright's Disease and Nephritis															
Diabetes Mellitus															
Puerperal Septicaemia															
Other Puerperal Diseases															
Cerebral Disease (Epilepsy)															
Other Cerebral Diseases															
Accident															
Homicide															
Suicide															
Un-declared Causes															
All Other Causes															

TABLE OF MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR IN THE NINTH WARD, 1928. The population of the NINTH WARD is estimated for these calculations at 41,638.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR TENTH WARD, 1928

CAUSES	Yellow	Colored	White	Total deaths	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes		83	13	262	149	110	36	16	8	10	2	16	43	75	43
Infantile Paralysis															
Typhoid Fever															
Malaria															
Smallpox											3				
Scarlet Fever															
Whooping Cough		1	4	5	4	1	3	1	1	5					
Diphtheria			9	9	2	7	1	1	3	5	1				
Influenza		1	3	4	3	1							2		
Epidemic Meningitis (Cerebro Spinal)															
Other Epidemic Diseases															
Tuberculosis (Large Intestine)			13	14	8	6						6	4	4	
Tuberculosis (Meningitis)															
Other Tuberculosis															
Cancer (Malignant Tumor)			26	26	11	15							5	15	6
Simple Meningitis			2	2		2				2					
Apoplexy (Softening of the Brain)		3	17	20	10	10							1	6	13
Brain Hemorrhage		7	22	29	19	10							10	9	8
Stroke			7	7	3	4									
Pneumonia		8	20	28	14	14	2		1	3					
Pneumonia (Bacterial)			10	14	7	7	3	6	3	11	5	2	6		
Pneumonia (Viral)		4	3	7	5	2		1		1	1	1	1		
Other Respiratory Diseases															
Diseases of the Stomach (Cancer, etc.)			1	1	1	1		1							
Diseases of the Small Intestine			2	3	2	3	5			5					
Appendicitis			1	2	3	2					1	1			
Hernia (Intestinal Obstruction)															
Cancer of Liver															
Biliary Disease and Nephritis		2	14	16	12	4					1		3	7	5
Diseases of Women (not Cancer)			1	1		1							1		
Birth Defects			1	1		1							1		
Other Perinatal Diseases															
Congenital Deformities and Malformation		3	15	20	12	8	19	1		20					
Old Age			1	1	1										
Accident		1	12	13	12	1	1	1		2	3		4	4	1
Homicide												1			
Suicide			3	3	2	1								2	
Undetermined Causes						1	1								
All Other Causes		10	2	3	14	7		2		4	2		4	14	

The death rate for the tenth ward was 19.4 per 1,000 of population, as against 9.2 for the previous year. The present population of the tenth ward is estimated for these calculations at 26,017.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR ELEVENTH WARD, 1928

CAUSES	Yellow	Colored	White	Total Deaths	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total, All Causes		14	262	296	149	147	18	5	5	28	7	8	35	84	104
Infantile Paralysis			1	1	1					1					
Typhoid Fever															
Malaria															
Smallpox															
Measles			1	1	1			1		1					
Scarlet Fever															
Whooping Cough			1	1		1		1		1					
Diphtheria			3	3	2	1			1	1	1				1
Influenza			4	4	3	1		1		1				2	1
Pneumo-Meningitis, Cerebro-Spinal															
Other Epidemic Diseases															
Tuberculosis of Lungs, Consumption		2	12	14	11	3						2	5	5	2
Tuberculosis Meningitis															
Other Tuberculosis			2	2	2				1	1		1			
Cancer, Malignant Tumor		1	23	24	8	16							3	12	9
Simple Meningitis															
Apoplexy, Softening of the Brain			25	25	10	15							1	2	22
Organic Heart Disease			1	49	20	29						1	4	18	26
Bronchitis			2	2		2									2
Pneumonia, Lobar		1	15	18	8	10				1			6	8	3
Pneumonia, Broncho		1	11	12	6	6	3	1	1	4	1		1	2	4
Other Respiratory Diseases			3	3	1	2							1	1	1
Diseases of the Stomach, Cancer excld			1	1	1	1							1		
Diseases of the Small Intestine			2	2	1	1	2			2					
Appendicitis and Typhlitis			4	4	2	2					1		2	1	
Hernia, Intestinal Obstruction			2	2		2								2	
Cirrhosis of Liver			4	4	2	2								4	
Bright's Disease and Nephritis		1	15	16	6	10					2	1	1	4	8
Diseases of Women (not Cancer)															
Puerperal Septicemia															
Other Puerperal Diseases			4	4		4						1	3		
Congenital Debility and Malformation		3	9	12	8	4	11	1		12					
Old Age			5	5	1	4									5
Accident			8	8	7	1					2		2	2	2
Homicide															
Suicide															
Ill-defined Causes															
All Other Causes		1	48	49	19	30	2		1	3		2	5	21	18

The death rate for the eleventh ward was 11.1 per 1,000 of population, as against 10.3 for the previous year. The present population of the eleventh ward is estimated for these calculations at 23,991.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

TWELFTH WARD, 1928

CAUSES	Yellow	Colored	White	Total deaths	Males	Females	Under 1 Year	1 and 2 Under	2 and 5 Under	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes		10	228	238	159	79	29	11	15	55	12	5	46	71	49
Infantile Paralysis															
Typhoid Fever															
Malaria															
Smallpox															
Measles		1	4	5	3	2	1	4		5					
Scarlet Fever															
Whooping Cough			4	4	1	3	1		1	4					
Diphtheria			3	3	1	2		1	2	3					
Influenza															
Epidemic Meningitis, Cerebro Spinal															
Other Fracemic Diseases															
Tuberculosis of Lungs (consumption)		1	20	21	1	4			1	1			9	10	2
Tuberculous Meningitis		1		1	1						1			1	
Other Tuberculosis			7	2	2						1			1	
Cancer, Malignant Tumor			16	16	15	3					1			9	5
Simple Meningitis			1	1	1	1						1			
Apoplexy - Softening of the Brain			10	10	3	7							1	4	5
Organic Heart Disease		3	41	46	23	23			1	1	2	1	11	13	18
Bronchitis															
Pneumonia, Lobar		2	20	22	19	3	3	1	2	6	1		5	6	4
Pneumonia, Broncho		1	16	17	14	3	4	3	3	10	1		2	1	3
Other Respiratory Diseases			2	2	2									1	1
Diseases of the Stomach - Cancer exc'd			1	1	1									1	
Diarrheal Diseases (under 5 years)			3	3	1	2			1	3					
Appendicitis and Typhlitis			1	1		1			1	1				3	
Hernia, Intestinal Obstruction			3	3	2	1								1	
Cirrhosis of Liver			1	1	1									1	
Bright's Disease and Nephritis			10	10	6	4							5	3	2
Diseases of Women (not Cancer)															
Puerperal Septicemia															
Other Puerperal Diseases															
Congenital Deformity and Malformation			15	15	10	5	15			15					
Old Age			2	2		2									2
Accident		1	18	19	17	2			3	3	5	1	5	4	1
Homicide			1	1	1		1			1					1
Suicide			2	2	2							1			
Undeclared Causes															
All Other Causes			30	30	19	11	2			2	1	1	7	14	5

The death rate for the twelfth ward was 8.1 per 1,000 of population as against 8.5 for the previous year. The present population of the twelfth ward is estimated for these calculations at 29,072.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
THIRTEENTH WARD, 1928

Cause	Yellow fever	Col- ored	White	Total deaths	Males	Fem- ales	Under 1 Year	Under 1 and 2	2 and under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
TOTAL CAUSES		4	499	503	261	242	45	10	17	72	16	25	74	177	139
Infectious Diseases															
Dysentery															
Malaria															
Schistosomiasis															
Scarlet Fever			3	3	1	2	1		2	3					
Whooping Cough															
Diphtheria			4	4		4			3	3	1				
Epidemic Typhus															
Epidemic Typhus (Rocky Mountain)															
Epidemic Typhus (Urban)															
Other Infectious Diseases															
Cancer Malignant Tumor			52	52	20	32							6	27	19
Simple Meningitis			1	1	1						1				
Organic Heart Disease	1		111	112	64	48			1	1	2	6	12	42	49
Pneumonia, Lobar			23	23	9	14	3	4		7	1	1	4	6	4
Pneumonia, Broncho			14	14	9	5	1		1	2	2			5	5
Other Respiratory Diseases			13	13	5	8	1	1	1	3			2	4	4
Diarrhoeal Diseases (under 5 years)			3	3	3		2		1	3					
Appendicitis and Typhlitis			5	5	2	3			1	1				4	
Hernia, Intestinal Obstruction			5	5	3	2		1		1		1	1	2	
Cirrhosis of Liver			10	10	8	2							1	7	2
Bright's Disease and Nephritis			18	18	6	12			1	1			3	4	10
Diseases of Women (not Cancer)															
Puerperal Septicaemia			1	1		1							1		
Other Puerperal Diseases			5	5		5						2	3		
Congenital Deformities Malformation	1		17	17	73	10	13			13					
Old Age			2	2											
Accident			22	22	14	8		2	3	5	2	2	4	5	4
Homicide															
Suicide	1		9	10	9	1							5	5	
All Unlined Causes															
Unexplained Deaths	1		2	3		3	1			1			1	4	1

The death rate for the thirteen ward was 1.5 per 1,000 population compared with the rate of 11.1 for the city as a whole. The present population of the thirteen ward is estimated for these calculations at 43,900.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

FOURTEENTH WARD, 1928

CAUSES	Yellow	Colored	White	Total deaths	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and over
Total, All Causes		48	320	368	200	168	53	17	18	88	26	20	96	107	66
Infantile Paralysis															
Typhoid Fever															
Malaria															
Scarlet Fever			4	4	3	1	1	3		4					
Whooping Cough			1	1	1		2			2	1				
Diphtheria		1	5	6	4	2		1	2	3	3				
Influenza			2	2					1	1				1	
Epidemic Meningitis (Cerebro Spinal)			3	3	1		2		1	3					
Other Infectious Diseases															
Tuberculosis (Lungs) Consumption		6	15	21	11	10						5	11	3	1
Tuberculosis (Males)			1	1		1				1					
Other Tuberculosis			1	1	1									1	
Cancer (Malignant Tumors)		2	24	26		18								1	
Septic Meningitis			5	5	3	2	1			1					
Apoplexy (Softening of the Brain)		1	12	13	9	4							3	5	20
Organic Heart Disease		6	47	53	27	29				1	3		6	12	5
Brucellosis			2	2	2			1		1	1				
Pneumonia, Lobar		4	26	30	19	11	6	6	4	16	1	4	6	1	2
Pneumonia, Bronchial		3	8	11	7	4	6			10					1
Other Respiratory Diseases		3	5	8	4	4					1				1
Diseases of the Stomach, Intestines and			1	1											
Diarrhea and Dysentery (under 5 years)			6	6	1	5	5	1		6					
Apoplexy (Stroke)			6	6	3	3			2	2	3	1			
Hernia, Intestinal Obstruction			4	4	4	2	1			1					1
Constipation			2	2	2										
Bright's Disease and Nephritis		3	16	19	8	11						1	4	8	6
Diseases of Women and Children		1	1	2	1										
Eclampsia			1	1	1										
Other Puerperal Diseases		1	3	4		4						1			
Congenital Deformity and Malformation		5	24	29	18	11	29			29					
Old Age			3	3	1	2									
Accident		4	25	29	24	5		2	2	4	5	2	5	9	4
Homicide			1	1		1							1		
Suicide			6	6	8	1							4	4	1
Blindness															
Unassigned Causes															
All Other Causes		3	55	58	34	24			1		4	3	8	26	16

The death rate for the fourteenth ward was 8.9 per 1,000 of population, as against 8.5 for the previous year. The present population of the fourteenth ward is estimated for these calculations at 41,295.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR FIFTEENTH WARD, 1928

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DEPARTMENT OF PUBLIC WORKS

CAUSES	Yel- low	Col- ored	White	Total deaths	Males	Females	Under 1 Year	1 and Under 7	2 and Under 5	5 Under 15 years	5 to 14	15 to 24	25 to 44	45 to 64	65 and over
Total All Causes		49	118	167	110	77	32	9	6	47	9	11	33	47	41
Infective Diseases															
Typhoid Fever															
Malaria															
Scarlet Fever															
Measles															
Whooping Cough															
Diphtheria															
Epidemic Meningitis															
Epidemic Meningitis, Cerebro Spinal															
Other Epidemic Diseases															
Tuberculosis, Pulmonary Consumption															
Tuberculosis Meningitis															
Other Tuberculosis															
Cancer, Malignant Tumor															
Simple Meningitis															
Apoplexy, Suffering of the Brain															
Organic Heart Disease															
Bronchitis															
Pneumonia, Lobar															
Pneumonia, Broncho															
Other Respiratory Diseases															
Diseases of the Stomach (Cancer exc.)															
Diseases of the Stomach (under 5 years)															
Appendicitis and Typhlitis															
Formal, Intestinal Obstruction															
Cirrhosis of Liver															
Bright's Disease and Nephritis															
Diseases of Women and Children															
Puerperal Septicemia															
Other Puerperal Diseases															
Congenital Debility and Malformation															
Old Age															
Accident															
Homicide															
Suicide															
Ill defined Causes															
All Other Causes															

The death rate for the fifteenth ward was 10.2 per 1,000 of population as against 11.0 for the previous year. The death rate for the fifteenth ward is estimated for these calculations at 18,505.

**MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
SIXTEENTH WARD, 1928**

CAUSES	Yel- low	Col- ored	White	Total deaths	Males	Fe- males	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes		14	415	429	221	208	38	5	11	54	8	22	58	15	135
Infant & Paralysis															
Typhoid Fever															
Malaria															
Smallpox															
Measles			4	4	2	2			2	4					
Scarlet Fever			1	1	1				1	1					
Whooping Cough			1	1	1		1			1					
Diphtheria			5	5	1	4		1							
Lullarney			2	2									1	1	
Epidemic Meningitis (Cerebro Spinal)			2	2	2		1			1			1		
Other Epidemic Diseases															
Tuberculosis of Lungs (Consumption)		2	22	24	16	8						6	8	8	2
Tuberculosis Meningitis		1	2	3	1	2	1			1	1	1			
Other Tuberculosis													1		
Cancer, Malignant Tumor		1	51	52	20	32							4	24	24
Simple Meningitis			3	3	2	1							2	1	
Apoplexy Softening of the Brain		1	34	35	14	21							1	1	11
Organic Heart Disease		1	91	92	53	39							8	40	19
Bronchitis															
Pneumonia, Lobar		2	21	23	14	9				4			2	8	4
Pneumonia Broncho		2	15	17	8	9	2	1		5			1	3	6
Other Respiratory Diseases			5	5	4	2							2		1
Diseases of the Stomach (Cancer exc'd)			2	2	1	1				1					1
Diarrhoeal Diseases (under 5 years)			4	4	3	1	4			4					
Amoebic Dysentery Typhilitis			6	6	4	2	1			1		2		1	
Hemorrhoids Obstruction			3	3	2	1									2
Constipation			7	7	5	2								1	4
Bright's Disease and Nephritis		2	12	14	5	9								8	6
Diseases of Women (not Cancer)															
Puerperal Diseases			1	1								1			
Other Puerperal Diseases			2	2		2						1	1		
Congenital Debility and Malformation		2	21	23	9	14	2			2					
Old Age			3	3	2	1									
Accident			11	11	7	4					1	1	5	3	1
Homicide			1	1	1								1		
Suicide			8	8	5	3								6	
Undefined Causes															
All Other Causes			76	76	38	38	3	1	2	6	3	5	9	28	25

The death rate for the sixteenth ward was 10.5 per 1,000 of population as against 9.4 for the previous year. The present population of the sixteenth ward is estimated for these calculations at 40,677.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR NON-RESIDENTS, 1928

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DEPARTMENT OF PUBLIC WORKS

CAUSES	White	Colored	Whites	Total	Males	Females	Under 1 Year	1 and Under 5	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Tuberculosis	25	497	523	285	238	54	2	14	70	29	43	119	153	109	
Intestinal Pathology															
Tuberculosis		2	2		2							2			
Malaria															
Scrub Typhus															
Measles															
Scarlet Fever															
Whooping Cough															
Diphtheria															
Influenza		1	1	1								1			
Pneumonia, Mortality		1	1		1							1			
Other Lung Diseases															
Tuberculosis of Lungs, Consumption	1	10	11	8	3			1	1		2	3	3	2	
Tuberculosis of Malignant		2	2												
Other Tuberculosis		2	2												
Cancer of Lung and Throat		54	54	25	29						2	13	2	2	
Smoking, Mortality		2	9	6	3		1	2	3	2	1	1	2	1	
Apoplexy, Stroke, and Cerebral	1	27	29	12	17						1	2	8	18	
Other Heart Diseases		4	64	33	34			1	1	3	4	19	18	22	
Brain Diseases															
Pneumonia, Tubercular	3	18	21	14	7	2		1	3	1	2	6	8	1	
Pneumonia, Bacterial		16	16	11	5	5	1		6	1	2	3	3	2	
Other Respiratory Diseases	1	4	4	1	1	1			1	1		1	1	1	
Diseases of the Stomach and Intestines		2	2	5	2								4	1	
Diarrhoeal Diseases, under 5 years		2	2	1											
Acute Diseases, 1 Year		20	20	9	11				1	1	6		6	1	
Hereditary Malformation		5	6	2	4								5	2	
Cerebral, Tubercular				2	2									2	
Brain Diseases, not Cancer	1	24	25	16	9			1	1			4	12	8	
Diseases of Women, not Cancer	2		4		4							3	2		
Priapism, Scrophulous		2	2		2										
Other Parasitic Diseases		10	10		10						2			1	
Constitutional Defect and Malformation		38	40	17	23	40			40						
Old Age		2	2											2	
Accident	1	58	61	49	12	1		1	2	4	12		5	11	
Fever		3	3	1	1						1	1	1	1	
Stroke		4	4	3	1									1	
Ill-defined Causes		1	1	1								1			
All Other Causes		6	109	115	61	54	3	1	5	8	2	1	25	4	

**MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
ADDRESS UNKNOWN, 1928**

CAUSES	Yellow	Colored	White	Total deaths	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and over
Total All Causes		11	83	94	6	18			1	1	1		4	34	51
Infantile Parvosis															
Typhoid Fever															
Malaria															
Smallpox															
Measles															
Scarlet Fever															
Whooping Cough															
Diphtheria															
Influenza															
Epidemic Meningitis (Cerebro Spinal)															
Other Epidemic Diseases															
Tuberculosis (all kinds) Consumption		1		1	1							1			
Tuberculosis Miliary															
Other Tuberculosis				1		1			1	1					
Cancer Malignant Lymph					6	1									
Simple Malignant															
Apoplexy Softening of the Brain		2	7	9	8	1									
Chronic Heart Disease			21	21	14	7								11	10
Brain Disease															
Pneumonia Lobar			5	5	5										
Pneumonia Bronchial			1	2	2										
Other Respiratory Diseases			1	1		1								1	
Diseases of the Stomach Cancer exc'd															
Diarrhoeal Diseases (under 5 years)															
Appendicitis and Typhitis															
Hemorrhage of the Intestines															
Cirrhosis of Liver															
Bilious Disease and Nephritis			14	14	12	2								5	11
Diseases of Women (not Cancer)															
Puerperal Septicemia															
Other Puerperal Diseases															
Constitutional Debility and Malformation															
Old Age		5	14	19	14	5									19
Accident		1	9	10	10						1	1	4	3	1
Homicide		1		1	1										
Suicide			1	1	1									1	
Ill defined Causes															
All Other Causes			2	2	2									1	1

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR MONTH OF JANUARY, 1928

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DEPARTMENT OF PUBLIC WORKS

CAUSES	Yellow and Colored	White	Total	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and over
Total All Causes	57	421	478	261	217	49	10	10	69	23	24	40	150	114
Infectious Diseases														
Typhoid Fever														
Malaria														
Scarlet Fever														
Whooping Cough														
Diphtheria														
Epidemic Meningitis (Cerebro Spinal)														
Other Infectious Diseases														
Tuberculosis (Consumption)														
Other Tuberculosis														
Other Tuberculosis														
Cancer (Malignant Tumor)														
Senile Menstritis														
Apoplexy (Stroke) of the Brain														
Organic Heart Disease														
Brucellosis														
Pneumonia (Lobar)														
Pneumonia (Broncho)														
Other Respiratory Diseases														
Diseases of the Stomach (Cancer exc'd)														
Diseases of the Stomach (under 5 years)														
Appendicitis and Typhlitis														
Intestinal Obstruction														
Cholecystitis														
Brucellosis (Nephritis)														
Diseases of Women (not Cancer)														
Pneumonia (Lobar)														
Other Respiratory Diseases														
Congenital Deformities and Malformations														
Old Age														
Accidents														
Homicide														
Suicide														
Infantile Diseases														
All Other Causes														
Total for January 1928	57	421	478	261	217	49	10	10	69	23	24	40	150	114

The death rate for the month was 11.2 per 1,000 of population as against 11.4 for the corresponding month. The present population of New York is estimated at 4,660,000. The death rate for the month of January, 1927, was 12.5 per 1,000 of population for 4,670,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

MONTH OF FEBRUARY, 1928

DEPARTMENT OF HEALTH

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CAUSES	Year 1927	Col- ored	White	Total deaths	Males	Fe- males	Under 1 Year	1 and under 2	2 and under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total, All Causes	69	472	541	305	236	67	18	21	116	18	24	16	159	148	
Infantile Parvosis															
Typhoid Fever															
Malaria															
Scarlet															
Measles	2	4	6	4	2	2	1	2	5	1					
Scarlet Fever		1	1	1	1			1	1						
Whooping Cough	1	1	4	4	3	1		1	4						
Diphtheria	1	7	8	3	5			6	7	1					
Influenza	1	1	2	1	1	1	1		1						
Frigitus Meningitis Cerebro-Spinal			1	1	1										
Other Epidemic Diseases															
Tuberculosis of Lungs and Organs	4	30	34	19	15							8	15	13	
Tuberculosis Meningitis															
Other Tuberculosis		2	2	2							1			1	
Cancer of Mouth and Throat	1	45	46	11	15							1	5	21	19
Small Malignant		2	2	1				1		1		1		12	21
Apoplexy, Softening of the Brain	3	32	35	18	17									40	4
Organic Heart Disease	6	86	92	54	38				1	2	2	2	5	1	2
Brucella		5	5	3	3	1	1		5	1				3	8
Pneumonia	9	38	47	31	16	7	6	5	16		4	10	1	6	
Pneumonia Bronchitis	7	22	29	19	10	11	5	1	1		1	1		2	3
Other Respiratory Diseases		8	8	6			1	1							
Diseases of the Stomach, Cancer except		1	1	1											
Chronic Diseases under 5 years	4	7	7	3	4	7				7			2		
Appendicitis and Typhlitis		5	7	4	3						1				
Hernia, Intestinal Obstruction	2	5	7	4	3	2						1			1
Cirrhosis of Liver		5	5	4	1									4	1
Biliary Disease and Nephritis	4	28	32	19	13						1	1	5	1	10
Diseases of Women, not Cancer	1	2	3		3										
Puerperal Septicemia															
Other Puerperal Diseases		4	4		4							1	3		
Constitutional Debility and Malformation	9	25	34	21	13	34				14					5
Old Age		5	5	2	3										8
Accident	2	29	30	19	11	1	1		2	5	1	5	9		
Homicide	1	1	2	2											
Suicide		7	7	5	2								2	4	1
Ill defined Causes		1	1						1						
All Other Causes		12	62	74	43	31	8	1	4	13	3	1	12	24	21
Totals February, 1927	1	68	371	440	218	222	65	10	8	83	15	21	22	37	117

The death rate for the month was 13.2 per 1,000 of population, as against 11.7 for the previous month. The present population of Newark is estimated for these calculations at 474,000. The death rate for the month of February, 1927, was 10.9 estimated population of 467,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
MONTH OF MARCH, 1928

[illegible]

The death rate for the month was 14.4 per 1,000 of population, as against 13.2 for the previous month. The present population of Newark is estimated for these calculations at 474,000. The death rate for the month of March, 1927, was 13.8, estimated population 467,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

MONTH OF APRIL, 1928

CAUSES	Yellow	Colored	White	Total deaths	Males	Females	Under 1 Year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
TOTAL	1	14	455	570	288	282	57	17	2	101	22	38	83	140	116
Infectious Diseases			1	1		1							1		
Measles		1	13	14	9	5	3	9	2	14					
Scarlet Fever			1	1	1						1				
Whooping Cough			4	4	2	2	3	1		4					
Diphtheria		3	8	11	4		1	1	6	8					
Epidemic Diseases				4	2	2				4					
Other Epidemic Diseases															
Tuberculosis (all forms)			21	21	2	19						5	17	10	
Tuberculous Meningitis													3		
Other Tuberculosis			5	5	5						2				
Cancer, Malignant Tumor		3	35	38	21	17							2	22	13
Simple Meningitis			8	8	5	3	1		1	2	1	1	1	1	1
Apoplexy (Stroke) of the Brain		6	27	33	14	19						1	2	17	18
Heart Disease			80	80	48	32						2	19	35	31
Brain			5	5	1	4	1				1			2	1
Pneumonia		4	3	7	4	3		4	5	13	3	1	8	17	5
Pneumonia Broncho		4	24	28	15	13	7	4	1	12	1	2	1	4	8
Other Respiratory Diseases					5	5					1			3	3
Diseases of the Digestive System		1	1	2			3							1	1
Diseases of the Circulatory System			3	3	1	2				3					
Arteriosclerosis (under 5 years)			8	8	6	2			1	1	2		3	2	
Heart Disease (over 5 years)			3	4	1	3		1		1				2	1
Coronary Artery Disease			4	4	3	1							1	2	1
High Blood Pressure		1	27	28	15	13			1	1			1	6	8
Diseases of Women (not Cancer)		2		2		2							1	1	
Puerperal Diseases			4	4		4							3	1	
Other Puerperal Diseases		1	1	2		2							2		
Congenital Debility and Malformation		6	19	25	16	9	25			25					4
Old Age		1	3	4	1	3									
Accident		4	24	28	25	3	1	1	1	3	2		5	12	6
Homicide		1		1	1										
Suicide			7	7	4	3							2	2	1
Fire, Burns, Choking			1	1	1										
All Other Causes		4	77	81	40	41	6	1	3	10	3	7	12	35	14
TOTALS April 1927	2	74	439	515	261	254	57	17	3	77	22	70	115	166	109

The death rate for the month was 12.4 per 1,000 of population, as against 14.4 for the previous month. The present population of Newark is estimated for these calculations at 444,000. The death rate for the month of April, 1927, was 12.7, estimated population 467,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR MONTH OF MAY, 1928

CAUSES	Under 5	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total Causes	80	58	56	71	74	50
Infantile Paralysis	1	1	1	1	1	1
Typhoid Fever	1	1	1	1	1	1
Malaria	1	1	1	1	1	1
Scarlet Fever	1	1	1	1	1	1
Whooping Cough	1	1	1	1	1	1
Diphtheria	3	4	2	5	1	1
Tuberculosis	1	4	5	4	1	1
Epidemic Meningitis (Cerebro Spinal)	1	1	1	1	1	1
Other Epidemic Diseases	1	1	1	1	1	1
Tuberculous Meningitis (Consumption)	1	9	8	18	28	10
Tuberculous Meningitis	1	1	1	1	1	1
Other Tuberculosis	1	1	1	1	1	1
Cancer (Malignant Tumors)	6	47	54	56	28	14
Simple Meningitis	1	1	1	1	1	1
Apoplexy, Softening of the Brain	1	25	26	9	17	1
Coronary Heart Disease	9	102	111	63	48	1
Bronchitis	3	3	3	1	2	3
Pneumonia, Lobar	13	41	54	33	21	6
Pneumonia, Broncho	1	1	1	1	1	1
Other Respiratory Diseases	1	2	3	2	1	1
Dysentery, Stomach and Intestines	1	1	1	1	1	1
Diarrhoea, Dysentery, Enteritis	1	1	1	1	1	1
Hepatitis, Acute	1	1	1	1	1	1
Cholera	1	1	1	1	1	1
Bright's Disease and Nephritis	2	22	24	13	11	1
Diseases of Women (not Cancer)	2	1	3	1	3	1
Puerperal Septicæmia	1	2	3	1	3	1
Other Puerperal Diseases	1	1	1	1	1	1
Cancer of the Uterus and Ovary	1	10	7	10	1	1
Old Age	1	7	8	6	2	1
Accident	1	38	39	31	8	1
Homicide	1	1	1	1	1	1
Self	1	1	1	1	1	1
Un-defined Causes	1	1	1	1	1	1
All Other Causes	6	73	79	37	42	3
Total May 1927	55	434	389	223	166	45

The death rate for the month was 13.5 per 1,000 of population, as against 12.4 for the corresponding month of 1927. The present population of New York is estimated for these calculations at 474,000. The death rate for the month of May, 1927, was 9.9, estimated population 467,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR

MONTH OF JUNE, 1928

CAUSES	White	Colored	Total	Under 1 Year	1 and Under 5	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes	73	197	270	213	48	14	17	74	22	34
Infantile Paralysis										
Typhoid Fever										
Malaria										
Smallpox										
Measles	1	2	3	1	2		1	3		
Scarlet Fever										
Whooping Cough		2	2	2		1	1	2		
Diphtheria	2	16	18	11	1	3	6	10	7	
Influenza		1	1					1		
Epidemic Meningitis (Cerebrospinal)										
Other Epidemic Diseases										
Tuberculosis of Lungs (Consumption)	12	21	33	11	2			18	5	1
Tuberculous Meningitis	2	3	5	4			2	3		
Other Tuberculosis		3	3							
Cancer, Malignant Tumor	4	37	41	23				1		
Simple Meningitis		2	2							
Apoplexy Softening of the Brain	2	29	31	14						
Organic Heart Disease	10	72	82	40	1			1	2	6
Bronchitis										
Pneumonia Lobar	4	23	27	8	1	4	4	9		2
Pneumonia Bronchial	5	8	13	4	3			6		2
Other Respiratory Diseases		4	4	1						
Diseases of the Stomach (Cancer except)		3	3	2						
Diarrhoeal Diseases (under 5 years)	1	3	4	2	3	1		4		
Diarrhoeal Diseases (over 5 years)		10	10	5					1	
Appendicitis and Typhlitis		1	1							
Hernia Intestinal Obstruction		3	3							
Cirrhosis of Liver		3	3							
Bright's Disease and Nephritis		5	5	21	26			13		9
Diseases of Women (not Cancer)	4	3	7	7				2	3	1
Puerperal Septicemia	1	1	2	1						
Other Puerperal Diseases		3	3	3						
Congenital Deformity and Malformation	5	24	29	16	13	29		29		3
Old Age		3	3	2	1					
Accident	4	23	27	5	1	1		1	7	3
Homicide		2	2	2					1	
Suicide		10	10	8	2					
Ill-defined Causes									1	3
All Other Causes	11	65	76	46	1	1	2	1	9	15
Totals June, 1927	1	58	59	391	206	185	52	8	10	70

The death rate for the month was 11.2 per 1,000 of population, as against 13.5 for the previous month. The present population of Newark is estimated for these calculations at 474,000. The death rate for the month of June, 1927, was 9.9 estimated population 467,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR MONTH OF JULY, 1928

300

DEPARTMENT OF PUBLIC WORKS

CAUSES	Yel- Wh	Col red	White Total	Males Total	Fem- ales	Under 1	1 and Under	2 and Under	5 Under	5 to 11	15 to 24	25 to 44	45 to 64	65 and over
Infantile Paralysis	1	5	6	1	5	1	40	14	6	14	78	68	28	87
Typhoid Fever	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Malaria	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Scarlet Fever	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Epidemic Meningitis, Cerebro Spinal	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Other Epidemic Diseases	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Epidemic Meningitis	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Other Epidemic Diseases	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Alcoholism	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Organic Heart Disease	1	6	45	52	30	22	1	1	1	1	1	1	1	1
Bronchitis	1	5	4	5	5	5	1	1	1	1	1	1	1	1
Pneumonia, Broncho	1	2	4	6	5	1	2	1	1	1	1	1	1	1
Other Respiratory Diseases	1	1	3	4	2	2	1	1	1	1	1	1	1	1
Diseases of the Stomach (Cancer exc'd)	1	1	3	3	1	1	1	1	1	1	1	1	1	1
Diarrhoeal Diseases (under 5 years)	1	1	7	8	5	3	7	1	8	1	1	1	1	1
Appendicitis and Typhlitis	1	1	5	7	2	5	1	1	1	1	1	1	1	1
Hepatitis	1	1	2	3	1	2	1	1	1	1	1	1	1	1
Cholera	1	1	2	3	1	2	1	1	1	1	1	1	1	1
Bacterial Dysentery and Typhoid	1	1	2	3	1	2	1	1	1	1	1	1	1	1
Diseases of Women (not Cancer)	1	2	1	3	1	1	1	1	1	1	1	1	1	1
Puerperal Septicaemia	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Other Puerperal Diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Other Diseases of Women	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Old Age	1	5	22	27	21	6	1	2	3	4	4	9	6	1
Accident	1	2	2	2	1	1	1	1	1	1	1	1	1	1
Homicide	1	2	2	2	1	1	1	1	1	1	1	1	1	1
Self-Suicide	1	6	6	5	1	1	1	1	1	1	1	1	1	1
Ill-defined Causes	1	9	64	73	42	31	3	3	6	2	6	10	24	25
All Causes	1	45	110	136	108	128	48	9	55	21	23	46	125	87

Figures for females with ages 25 to 44 are based on 1,000 females; figures for males with ages 25 to 44 are based on 1,000 males. Figures for all causes are based on 1,000 persons. Figures for all causes are based on 1,000 persons.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR MONTH OF AUGUST, 1928

CAUSES	Year 1928	Col- ored	White	Total Deaths	Males	Females	Under 1 Year	1 and Under 5	2 and Under 5	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total Mortality		61	119	180	239	180	43	12	15	10	22	25	84	117
Infantile Paralysis		1	1	1	1	1			1	1				
Typhoid Fever		1	1	1		1							1	
Measles														
Smallpox														
Scarlet Fever														
Whooping Cough	1	3	4	3	3		2	2		4				
Diphtheria		4	4	1						1				
Influenza		1	1	1		1								
Epidemic Meningitis (Epidemic)						1						1		
Other Epidemic Diseases														
Tuberculosis (Consumption)	4	20	34	19	15					1	1	4	8	
Tuberculosis of the Brain	3	1	4	4				1	1	2			1	
Tuberculosis of the Lungs	1	2	3	3									1	
Cancer (Malignant Tumors)	5	34	49	20	19								22	10
Simple Meningitis		1	1	1		1								
Apoplexy (Softening of the Brain)		23	23	10	13							1	0	13
Organic Heart Disease	12	64	76	49	27		1		1	2	5	4	13	24
Bronchitis														
Pneumonia, Lobar	4	7	11	5	6	2			1	3			4	1
Pneumonia, Broncho	3	9	12	7	5	2	2		1	5				
Other Respiratory Diseases		2	2											2
Diseases of the Stomach (Cancer exc'd)														
Diarrhoeal Diseases (under 5 years)	1	10	11	4	7	9	2			11				
Appendicitis (Typhoid)	1	7	8	5	3				2				4	1
Hepatitis (Typhoid)	1	5	6		6								3	2
Cirrhosis of the Liver		6	6	6									4	2
Bright's Disease and Nephritis	2	17	19	8	11					1			2	10
Diseases of Women (not Cancer)														6
Puerperal Septicemia														
Other Puerperal Diseases	1	8	9		9							3	6	
Constitutional Defect and Malformation	6	21	27	21		26	1			2				6
Old Age	1	5	6	1	5									
Accident	3	29	32	24	8		2		4	6	6	2	10	5
Homicide	2	1	3	1	2							1	2	
Suicide	1	6	7	5	2							2	3	1
Suicide by Hanging		1	1	1					1	1				
All Other Causes	7	60	67	40	27		1	2		3	5		13	19
Total Mortality 1928		58	116	174	227	161	52	4	8	14	22	21	78	114

The death rate for the month was 10.2 per 1,000 of population, as against 9.2 for the previous month. The present population of Newark is estimated at 474,000. The death rate for the month of August, 1927, was 9.5, estimated population 467,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR MONTH OF SEPTEMBER, 1928

CAUSES	Yellow	Colored	White	Total	Males	Females	Under 1 Year	1 and Under 5	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes	1	53	331	385	203	182	14	7	9	63	13	18	37	117	90
Infantile Parvovirus			1	1	1						1				
Typhoid Fever			1	1		1							1		
Malaria															
Smallpox															
Measles															
Scarlet Fever															
Whooping Cough															
Diphtheria		1	2	3	3				2	2	1				
Epidemic		1		1		1									1
Epidemic Meningitis (Cerebro Spinal)			1	1	1								1		
Other Epidemic Diseases															
Tuberculosis (Pulmonary Consumption)		8	16	24	19	5						4	12	2	1
Tuberculosis Meningitis															
Heart Diseases		1	2	3		3									
Cancer of Malignant Tumors		2	42	44	19	25									
Simple Meningitis														13	14
Apoplexy—Softening of the Brain		2	29	31	16	15							1	14	17
Organic Heart Disease		11	49	60	21	39							1	19	21
Bronchitis		1	1	2	1	1									
Pneumonia, Lobar		4	9	13	7	6		2		1					
Pneumonia, Broncho		1	8	9	7	2	2	1		1					
Other Respiratory Diseases		2	5	7	7			1							
Diseases of the Stomach (Cancer exc'd)			6	6	5	1									
Diarrhoeal Diseases (under 5 years)		1	12	13	5	8	11	2		13					
Appendicitis, Typhilitis			8	10	7	3		1		2		2		2	1
Hernia, Intestinal Obstruction		2	2	4	2	2	1		1	2				1	
Cirrhosis of Liver			3	3	1	2								1	
Bright's Disease and Nephritis		3	12	15	7	8					1	1		6	5
Diseases of Women (not Cancer)		1	1	2		2									
Puerperal Septicemia			1	1		1									
Other Puerperal Diseases			2	2		2									
Gonorrhea, Decubity and M. Dermatitis		3	3	6	1	5				7					
Old Age			8	8	4	4								1	7
Accident		1	24	25	16	9			2	2	4	1	11	4	3
Homicide		1	2	3	3										
Self-suicide			4	4	4										
Ill-defined Causes			1	1		1	1			1			2	2	
All Other Causes		5	56	61	34	27	2		2	4	2	5	12	24	14
TOTAL for the month of September 1927	2	54	335	391	215	176	51	8	1	50	1	24	69	154	63

The population for the month of September 1927 was 474,000. The death rate for the month of September, 1927, was 9.6, estimated population 467,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
MONTH OF OCTOBER, 1928

CAUSES	Yel- low	Col- ored	White	Total deaths	Males	Fe- males	Under 1 year	1 and Under 2	2 and Under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total All Causes	2	62	37	441	238	203	53	4	11	68	12	20	73	153	115
Infantile Paralysis															
Typhoid Fever			1	1	1						1				
Malaria															
Smallpox															
Measles															
Scarlet Fever															
Whooping Cough															
Diphtheria		1		1	1				1	1				2	1
Influenza			4	4	4						1				
Epidemic Meningitis (Cerebro Spinal)															
Other Epidemic Diseases															
Tuberculosis of Lungs (Consumption)		10	24	34	17	17					1	8	15	8	2
Tuberculous Meningitis			1	1		1						1			
Other Tuberculosis			2	2	2				1	1			1		
Cancer Malignant Tumors			43	43	23	20							9	20	14
Simple Meningitis		1	4	4	2	2	1			1	2			2	
Apoplexy Softening of the Brain		5	19	24	12	12							4	12	8
Organic Heart Disease	1	6	73	80	43	37					4		8	29	39
Brachitis		1	2	3		3	1								2
Pneumonia Lobar		9	12	21	9	12	4	3	1	8	1		3	6	3
Pneumonia Broncho		2	7	9	4	5	2	1	1	4			1	1	3
Other Respiratory Diseases	1	1	4	6	5	1								4	2
Diseases of Stomach (Cancer excd)		1	1	2	1	1								1	1
Diarrheal Diseases Under 5 years			13	13	9	4	12		1	14					
Appendicitis and Typhoid			4	4	3	1			1	1			1	2	
Hernia Intestinal Obstruction			5	5	2	3					1			3	
Cirrhosis of Liver		1	7	8	6	2							1	5	2
Bright's Disease and Nephritis		4	17	21	10	11			1	1			5	8	7
Diseases of Women (not Cancer)															
Pyrexial Septicemia			1	1		1									
Other Pyrexial Diseases			3	3		3									
Congenital Debility and Malformation		5	24	29	16	13	29			23					4
Old Age			4	4	2	2									
Accident		3	26	29	21	8	1		2	3	1	4	9	7	5
Homicide		3	3	6	4	2						1	4	1	
Suicide			7	7	4	3								6	1
Ill-defined Causes															
All Other Causes		9	67	76	37	39	3		1	4	2	3	10	36	21
Totals October 1927		62	182	444	245	199	51	7	8	66	19	26	89	143	101

The death rate for the month was 10.9 per 1,000 of population as against 9.5 for the previous month. The present population of Newark is estimated for these calculations at 474,000. The death rate for the month of October, 1927, was 10.6 (estimated population 467,000).

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR MONTH OF NOVEMBER, 1928

CAUSES	Yel- low	Col- ored	White	Total	Males	Fe- male	Under 1 Year	1 and Under 5	2 and Under 5	5 to 14	15 to 44	25 to 44	45 to 64	65 and Over
Total All Causes		60	354	414	222	192	45	9	8	62	22	21	81	112
Typhoid Fever			1	1		1		1				1		
Malaria			1	1										
Whooping Cough			1	1	1					1				
Diphtheria			7	7	2	5	1	2	1	4	3			
Tuberculous Meningitis			2	2										
Tuberculosis			5	5	1	4		1		2	6	11	3	4
Tuberculous Meningitis			1	1	1	2			1	1	1			
Tuberculosis			28	30	14	16				1		5	17	7
Acute Appendicitis			28	31	15	17				1		1	14	16
Chronic Appendicitis			59	68	36	32			1	2	3	13	21	28
Peritonitis			2	2	2		1			1		1		
Enteritis			19	25	16	9				4	3	11	5	2
Colitis			9	9	6	3	5	2		7	1			1
Diseases of Stomach (Cancer exc'd)			4	4	3	5			1	1	1		3	1
Diseases of Intestines (Cancer exc'd)			2	5	7	4			1	1				
Acute Intestinal Typhoid		1	3	4	3								1	
Chronic Intestinal Typhoid													1	
Enteritis					1								2	1
Diseases of Women (not Cancer)										1			8	12
Puerperal Septicemia		1	1	2		2					2			
Other Puerperal Diseases			4	4								2		
Chronic Diseases of Menstruation						11								
Acute Diseases of Menstruation			4	4	2	2								4
Hydrocephalus			24	28	22	6			1	1	1	9	9	7
Hydrocephalus		2		4	2	2					1	3		
Stroke			5	5	3	2						1	4	
All Other Causes		10	60	70	34	36	3	1	1	5	2	4	6	29
Total Non-White		60	354	414	222	192	45	9	8	62	22	21	81	112

The data for the principal causes of death are from the 10 death certificates for the month of November, 1928. The population of Newark is 247,000. The population of Newark in November, 1928, was 247,000.

Mortality Statistics of Newark

FOR YEAR ENDING DECEMBER 31, 1928

INCLUDING NON-RESIDENT DEATHS ARRANGED TO
GIVE DISEASE, AGE AND SEX, ACCORDING TO IN-
TERNATIONAL CLASSIFICATION, COMPILED BY
THE DIVISION OF VITAL STATISTICS, DE-
PARTMENT OF HEALTH, NEWARK, N. J.

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Including non-resident deaths arranged to give disease, sex and age according to international classification

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MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der	1	2	3	4	To- ta un- der 5 yrs	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
		1																							
Diphtheria																									
Males	37	1	6	7	6	5	25	10	1													1			
Females	58	4	8	10	12	5	39	17	2																
Total	95	5	14	17	18	10	64	27	3													1			
Influenza 11A -																									
Males	7								1					1	1	1	1						1		
Females	5			1			1			1			1	1	1	1	1								
Total	12			1			1		1	1			1	1	2	1	1	2					1		
Influenza 11B																									
Males	14	1	1				2		1			1	1		1	1	2		2	2	1				
Females	9									1		2	1		1	1			1		1		1		
Total	23	1	1				2		1	1		3	2		2	2	2		3	2	2		1		
Mumps																									
Males	1	1					1																		
Females	2	1					1														1				
Total	3	2					2														1				

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

[illegible]

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	Ages	Under 1	1	2	3	4	Total under 5 yrs.	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
German Measles—																									
Males	1	1					1																		
Females																									
Total	1	1					1																		
Chicken Pox—																									
Males																									
Females	1		1				1																		
Total	1		1				1																		
Rabies																									
Males	1				1		1																		
Females																									
Total	1				1		1																		
Tetanus																									
Males	2											1	1												
Females																									
Total	2											1	1												

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	To- tal un- der 5 yrs.	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Tuberculosis of Lungs—																									
Males	238							1	1	10	23	19	22	2	17	19	34	20	14	6	4		1		
Females	128		1	1		1	3	1	3	19	30	19	13	9	12	3	8	2	2	4					
Total	366		1	1		1	3	2	4	29	53	38	35	16	29	22	42	22	16	10	4		1		
Tuberculosis of the Membranes—																									
Males	10	1	1	1	1	1	5	1	2				1		1										
Females	8	1		1	1	1	4	2		2															
Total	18	2	1	2	2	2	9	3	2	2			1		1										
Tuberculosis of Peritoneum—																									
Males	3			1			1	1					1												
Females	2					1	1	1		1															
Total	5			1		1	2	1		1			1												
Tuberculosis of Vertebral Column—																									
Males	6				1		1		2				1	1			1								
Females	3							2										1		1					
Total	9				1		1	2	2				1	1			1	1							

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	Total un- der 5 Sym.	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
								to 9	to 14	to 19	to 24	to 29	to 34	to 39	to 44	to 49	to 54	to 59	to 64	to 69	to 74	to 79	to 84	to 89	and over
Tuberculosis of Bones																									
Males	1																	1							
Females																									
Total	1																	1							
Disseminated Tuberculosis—																									
Males	2								1					1											
Females																									
Total	2								1					1											
Other Tuberculosis—																									
Males	10						1	1		1		3	2				1	1							
Females	1										1														
Totals	11						1	1		1	1	3	2				1	1							
Syphilis—																									
Males	6	2					2				1			1	1				1						
Females	5	2					2		1			1				1									
Total	11	4					4		1		1	1		1	1	1			1						

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

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DEPARTMENT OF PUBLIC WORKS

CAUSES OF DEATH	All Ages	Under 1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-100
Coronary Infarction																								
Males	10	1				1	1		1			1					2	1	1					
Females	9	1	1			2					1	1	3					1	1					
Total	19	2	1			3	1		1		1	2	3	2			2	2	2					
General Diseases not included in Class No. 1—																								
Total	705																							
Cancer of the Buccal Cavity																								
Males	16												2			2	4	3	1					
Females																								
Total	16												2			2	4	3	1					
Cancer of the Stomach and Esophagus																								
Males	105							1				2	6	11	18	20	20	12		5	1			
Females	135											2	7	5	12	13	11	11	1	12	1			
Total	240							1				4	13	16	30	33	31	23	1	17	2			
Cancer of the Peritoneum																								
Males	23										1	1			1	2	7	2	7	1	1			
Females	20								1			1	2		1	3	4	2	1	3	1	1		
Total	43								1		1	2	2	1	2	10	6	5	2	1	1	1		

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	To- tal un- der 5 yrs	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Cancer of the Female Genital Organs—																									
Males																									
Females	62										1		1	6	6	13	7	11	8	4	3	1	1		
Total	62										1		1	6	6	13	7	11	8	4	3	1	1		
Cancer of the Breast—																									
Males																									
Females	43											1	2	2	5	5	7	10	2	4	3		1	1	
Total	43											1	2	2	5	5	7	10	2	4	3		1	1	
Cancer of the Skin—																									
Males																									
Females	2																						1		1
Total	2																						1		1
Cancer of Other Organs—																									
Males	73				1	1	2		1	1		1	1	1	4	5	7	11	4	10	13	6			2
Females	42						3							2	4	6	7	9	2	2	3	4			
Total	115				1	1	2	3	1	1		1	1	3	8	11	14	20	6	12	16	10	4		2

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	To- tal un- der 5 yrs	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Pernicious Anemia—																									
Males	6	1					1									2		1					1		
Females	7															4	1		1						
Total	13	1					1									6	1	1	1	1		1	1		
Diabetes																									
Males	29					1	1		2						1	1	4	8	4	5	1	1	1		
Females	62							1	2		1		1	3	1	2	5	10	1	11	5	3			
Total	91					1	1	1	4		1		1	3	2	3	9	18	21	16	6	4	1		
Addison's Disease—																									
Males																									
Females	2												1	1											
Total	2												1	1											
Rickets—																									
Males	2	1	1				2																		
Females																									
Total	2	1	1				2																		

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Under 1	1	2	3	4	To- tal Under 5 yrs.	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	and over																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		1	1	1	1	1	1	9	14	19	24	29	34	39	44	49	54	59	64	69	74	79	84	89	94	99	104	109	114	119	124	129	134	139	144	149	154	159	164	169	174	179	184	189	194	199	204	209	214	219	224	229	234	239	244	249	254	259	264	269	274	279	284	289	294	299	304	309	314	319	324	329	334	339	344	349	354	359	364	369	374	379	384	389	394	399	404	409	414	419	424	429	434	439	444	449	454	459	464	469	474	479	484	489	494	499	504	509	514	519	524	529	534	539	544	549	554	559	564	569	574	579	584	589	594	599	604	609	614	619	624	629	634	639	644	649	654	659	664	669	674	679	684	689	694	699	704	709	714	719	724	729	734	739	744	749	754	759	764	769	774	779	784	789	794	799	804	809	814	819	824	829	834	839	844	849	854	859	864	869	874	879	884	889	894	899	904	909	914	919	924	929	934	939	944	949	954	959	964	969	974	979	984	989	994	999	1004	1009	1014	1019	1024	1029	1034	1039	1044	1049	1054	1059	1064	1069	1074	1079	1084	1089	1094	1099	1104	1109	1114	1119	1124	1129	1134	1139	1144	1149	1154	1159	1164	1169	1174	1179	1184	1189	1194	1199	1204	1209	1214	1219	1224	1229	1234	1239	1244	1249	1254	1259	1264	1269	1274	1279	1284	1289	1294	1299	1304	1309	1314	1319	1324	1329	1334	1339	1344	1349	1354	1359	1364	1369	1374	1379	1384	1389	1394	1399	1404	1409	1414	1419	1424	1429	1434	1439	1444	1449	1454	1459	1464	1469	1474	1479	1484	1489	1494	1499	1504	1509	1514	1519	1524	1529	1534	1539	1544	1549	1554	1559	1564	1569	1574	1579	1584	1589	1594	1599	1604	1609	1614	1619	1624	1629	1634	1639	1644	1649	1654	1659	1664	1669	1674	1679	1684	1689	1694	1699	1704	1709	1714	1719	1724	1729	1734	1739	1744	1749	1754	1759	1764	1769	1774	1779	1784	1789	1794	1799	1804	1809	1814	1819	1824	1829	1834	1839	1844	1849	1854	1859	1864	1869	1874	1879	1884	1889	1894	1899	1904	1909	1914	1919	1924	1929	1934	1939	1944	1949	1954	1959	1964	1969	1974	1979	1984	1989	1994	1999	2004	2009	2014	2019	2024	2029	2034	2039	2044	2049	2054	2059	2064	2069	2074	2079	2084	2089	2094	2099	2104	2109	2114	2119	2124	2129	2134	2139	2144	2149	2154	2159	2164	2169	2174	2179	2184	2189	2194	2199	2204	2209	2214	2219	2224	2229	2234	2239	2244	2249	2254	2259	2264	2269	2274	2279	2284	2289	2294	2299	2304	2309	2314	2319	2324	2329	2334	2339	2344	2349	2354	2359	2364	2369	2374	2379	2384	2389	2394	2399	2404	2409	2414	2419	2424	2429	2434	2439	2444	2449	2454	2459	2464	2469	2474	2479	2484	2489	2494	2499	2504	2509	2514	2519	2524	2529	2534	2539	2544	2549	2554	2559	2564	2569	2574	2579	2584	2589	2594	2599	2604	2609	2614	2619	2624	2629	2634	2639	2644	2649	2654	2659	2664	2669	2674	2679	2684	2689	2694	2699	2704	2709	2714	2719	2724	2729	2734	2739	2744	2749	2754	2759	2764	2769	2774	2779	2784	2789	2794	2799	2804	2809	2814	2819	2824	2829	2834	2839	2844	2849	2854	2859	2864	2869	2874	2879	2884	2889	2894	2899	2904	2909	2914	2919	2924	2929	2934	2939	2944	2949	2954	2959	2964	2969	2974	2979	2984	2989	2994	2999	3004	3009	3014	3019	3024	3029	3034	3039	3044	3049	3054	3059	3064	3069	3074	3079	3084	3089	3094	3099	3104	3109	3114	3119	3124	3129	3134	3139	3144	3149	3154	3159	3164	3169	3174	3179	3184	3189	3194	3199	3204	3209	3214	3219	3224	3229	3234	3239	3244	3249	3254	3259	3264	3269	3274	3279	3284	3289	3294	3299	3304	3309	3314	3319	3324	3329	3334	3339	3344	3349	3354	3359	3364	3369	3374	3379	3384	3389	3394	3399	3404	3409	3414	3419	3424	3429	3434	3439	3444	3449	3454	3459	3464	3469	3474	3479	3484	3489	3494	3499	3504	3509	3514	3519	3524	3529	3534	3539	3544	3549	3554	3559	3564	3569	3574	3579	3584	3589	3594	3599	3604	3609	3614	3619	3624	3629	3634	3639	3644	3649	3654	3659	3664	3669	3674	3679	3684	3689	3694	3699	3704	3709	3714	3719	3724	3729	3734	3739	3744	3749	3754	3759	3764	3769	3774	3779	3784	3789	3794	3799	3804	3809	3814	3819	3824	3829	3834	3839	3844	3849	3854	3859	3864	3869	3874	3879	3884	3889	3894	3899	3904	3909	3914	3919	3924	3929	3934	3939	3944	3949	3954	3959	3964	3969	3974	3979	3984	3989	3994	3999	4004	4009	4014	4019	4024	4029	4034	4039	4044	4049	4054	4059	4064	4069	4074	4079	4084	4089	4094	4099	4104	4109	4114	4119	4124	4129	4134	4139	4144	4149	4154	4159	4164	4169	4174	4179	4184	4189	4194	4199	4204	4209	4214	4219	4224	4229	4234	4239	4244	4249	4254	4259	4264	4269	4274	4279	4284	4289	4294	4299	4304	4309	4314	4319	4324	4329	4334	4339	4344	4349	4354	4359	4364	4369	4374	4379	4384	4389	4394	4399	4404	4409	4414	4419	4424	4429	4434	4439	4444	4449	4454	4459	4464	4469	4474	4479	4484	4489	4494	4499	4504	4509	4514	4519	4524	4529	4534	4539	4544	4549	4554	4559	4564	4569	4574	4579	4584	4589	4594	4599	4604	4609	4614	4619	4624	4629	4634	4639	4644	4649	4654	4659	4664	4669	4674	4679	4684	4689	4694	4699	4704	4709	4714	4719	4724	4729	4734	4739	4744	4749	4754	4759	4764	4769	4774	4779	4784	4789	4794	4799	4804	4809	4814	4819	4824	4829	4834	4839	4844	4849	4854	4859	4864	4869	4874	4879	4884	4889	4894	4899	4904	4909	4914	4919	4924	4929	4934	4939	4944	4949	4954	4959	4964	4969	4974	4979	4984	4989	4994	4999	5004	5009	5014	5019	5024	5029	5034	5039	5044	5049	5054	5059	5064	5069	5074	5079	5084	5089	5094	5099	5104	5109	5114	5119	5124	5129	5134	5139	5144	5149	5154	5159	5164	5169	5174	5179	5184	5189	5194	5199	5204	5209	5214	5219	5224	5229	5234	5239	5244	5249	5254	5259	5264	5269	5274	5279	5284	5289	5294	5299	5304	5309	5314	5319	5324	5329	5334	5339	5344	5349	5354	5359	5364	5369	5374	5379	5384	5389	5394	5399	5404	5409	5414	5419	5424	5429	5434	5439	5444	5449	5454	5459	5464	5469	5474	5479	5484	5489	5494	5499	5504	5509	5514	5519	5524	5529	5534	5539	5544	5549	5554	5559	5564	5569	5574	5579	5584	5589	5594	5599	5604	5609	5614	5619	5624	5629	5634	5639	5644	5649	5654	5659	5664	5669	5674	5679	5684	5689	5694	5699	5704	5709	5714	5719	5724	5729	5734	5739	5744	5749	5754	5759	5764	5769	5774	5779	5784	5789	5794	5799	5804	5809	5814	5819	5824	5829	5834	5839	5844	5849	5854	5859	5864	5869	5874	5879	5884	5889	5894	5899	5904	5909	5914	5919	5924	5929	5934	5939	5944	5949	5954	5959	5964	5969	5974	5979	5984	5989	5994	5999	6004	6009	6014	6019	6024	6029	6034	6039	6044	6049	6054	6059	6064	6069	6074	6079	6084	6089	6094	6099	6104	6109	6114	6119	6124	6129	6134	6139	6144	6149	6154	6159	6164	6169	6174	6179	6184	6189	6194	6199	6204	6209	6214	6219	6224	6229	6234	6239	6244	6249	6254	6259	6264	6269	6274	6279	6284	6289	6294	6299	6304	6309	6314	6319	6324	6329	6334	6339	6344	6349	6354	6359	6364	6369	6374	6379	6384	6389	6394	6399	6404	6409	6414	6419	6424	6429	6434	6439	6444	6449	6454	6459	6464	6469	6474	6479	6484	6489	6494	6499	6504	6509	6514	6519	6524	6529	6534	6539	6544	6549	6554

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	To- tal un- der 5 yrs.	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Diseases of the Thymus Gland—																									
Males	4	3	1				4																		
Females	4	4					3	1																	
Total	8	6	1				7	1																	
Disease of the Adrenas—																									
Males																									
Females	1																1								
Total	1																1								
Leukemia—																									
Males	8		1				1	1				1					2	2					1		
Females	8				1		1	1							1	3	2								
Total	16		1		1		2	2				1			1	3	4	2					1		
Hodgkins' Disease																									
Males	4								1					1	1				1						
Females	2													1						1					
Total	6								1					2	1				1	1					

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	To- tal un- der 5 yrs.	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Simple Meningitis—																									
Males	19	1	1	1		2	5	2		3		1		1	2	2	1	2		1					
Females	16	5					5	3		2	1	1	1	1	1				1						
Total	35	6	1	1		2	10	5		4	1	2	1	2	3	2	1	2	1	1					
Locomotor Ataxia—																									
Males	2																1	1							
Females	2									1										1					
Total	4									1							1	1		1					
Other Diseases of Spinal Cord																									
Males	6														1	1	1	1	1		1				
Females	2																	1	1						
Total	8														1	1	1	2	2		1				
Apoplexy (Cerebral Hemorrhage)—																									
Males	164										1		3	2	5	14	5	22	27	25	31	12	11	5	1
Females	192									1				4	6	9	17	23	20	29	29	30	15	4	5
Total	356									1	1		3	6	11	23	22	45	47	54	60	42	26	9	6

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	Age	Un- der 1	1	2	3	4	To- tal per 5 yrs.	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
								to 9	to 14	to 19	to 24	to 29	to 34	to 39	to 44	to 49	to 54	to 59	to 64	to 69	to 74	to 79	to 84	to 89	to 94
Intracranial Hemorrhage																									
Males	2													1				1							
Females	2													1	1								1		
Total	4													1	1			1					1		
Cerebral Thrombosis—																									
Males	1																					1			
Females	2														1							1			
Total	3														1							2			
Hemiplegia																									
Males	5															1		2	2						
Females	3	1				1														1	1				
Total	8	1				1										1		2	2	1	1				
Progressive Paralysis																									
Males	1																1								
Females																									
Total	1																1								

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	Total un- der 5 yrs.	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Other forms of Menstruation																									
Males																									
Females	2												2												
Total	2												2												
Epilepsy																									
Males	2										1						1								
Females	9				1		1			1	2				1	1		2					1		
Total	11				1		1			1	3				1	1		1	2				1		
Infantile Convulsions—under 5 years																									
Males	2	1	1				2																		
Females	3	3					3																		
Total	5	4	1				5																		
Neuralgia and Neuritis—																									
Males																									
Females	1																		1						
Total	1																		1						

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Under 5 yrs				Total under 5 yrs	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90 and over
		1	2	3	4		9	14	19	24	29	34	39	44	49	54	59	64	69	74	79	84	89	
Chief Diseases of the Nervous System																								
Males	14		1	1		2	2		1		1	1	1	1	1		2		1		1			
Females	6										1	1	1	1	1					1				
Total	20		1	1		2	2		1		2	2	2	2	2		2		1	1	1			
Diseases of the Ear																								
Males																								
Females	1	1				1																		
Total	1	1				1																		
Diseases of the Mastoid Process—																								
Males	8	1	1			2	3							1				1						
Females	8	1				1			1			1	1											
Total	16	2	1			3	3		1	1		2	1	2	2		1							
Diseases of the Circulatory System																								
Total	1236																							
Pneumonia																								
Males	4							2				1					1							
Females	2						1								1									
Total	6						1	2				1		1		1								

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	Total un- der 5 yrs	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Endocarditis and Myocarditis (Acute),—																									
Males	16	—	—	—	—	—	—	3	—	3	2	2	2	2	1	—	—	1	—	—	—	—	—	—	—
Females	17	—	1	—	2	—	3	4	1	3	3	—	1	—	1	—	1	—	—	—	—	—	—	—	—
Total	33	—	1	—	2	—	3	7	1	6	5	2	3	2	2	—	1	1	—	—	—	—	—	—	—
Angina Pectoris																									
Males	59	—	—	—	—	—	—	—	—	—	—	1	2	2	5	10	13	9	2	9	3	2	—	1	—
Females	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	5	—	1	—
Total	71	—	—	—	—	—	—	—	—	—	—	1	2	2	5	10	13	11	4	9	5	7	—	2	—
Other Diseases of the Heart																									
Males	456	2	—	—	2	—	4	4	5	12	1	2	17	11	37	31	48	57	58	51	3	36	23	13	1
Females	434	—	1	—	—	—	1	4	5	6	6	13	12	19	18	30	28	36	51	59	48	32	26	22	8
Total	890	2	1	—	2	—	5	8	10	18	9	15	29	30	55	61	76	93	109	116	85	68	39	35	9
Aneurysm—																									
Males	18	—	—	—	—	—	—	—	—	—	—	—	2	2	3	3	4	—	2	2	—	—	—	—	—
Females	3	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—	—	—
Total	21	—	—	—	—	—	—	—	—	—	—	—	2	3	4	3	5	—	2	2	—	—	—	—	—

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH.	All Ages	Un- der 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90 and over
Arterio Sclerosis—																					
Males	55							1		1		4	3	5	8	9	8	4	4	2	6
Females	48												1		7	8	11	5	5		
Total	98							1	1	2		4	4	5	10	13	18	16	9	7	8
Other Diseases of the Arteries—																					
Males	8							1		1				1	3	1	1				
Females														1		1					
Total	10							1		1				2	3	2	1				
Embolism and Thrombosis—																					
Males	5	1					1	1	1	2		3	2	6	10	7	1	1	1		
Females	4		1	1								5	5	4	11	4	3	7	3		
Total	94	1		1	1		1	1	1	2		8	7	12	11	11	8	4	2		
Diseases of Veins—																					
Males	1	1																			
Females	4	1								1		1	1								
Total	5	2								1		1	1								

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	To- tal un- der 5yrs.	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over	
Diseases of the Lymphatic System—																										
Males	1																	1								
Females																										
Total	1																	1								
Hemorrhage without Specified Cause—																										
Males	2													1			1									
Females	3									1					1				1							
Total	5									1				1	1		1		1							
Other Diseases of the Circulatory System—																										
Males	2																				1		1			
Females																										
Total	2																				1		1			
Diseases of the Respiratory System—																										
Total	743																									
Abscess of Antrum—																										
Males	4										1				1		1			1						
Females	1									1																
Total	5									1	1				1		1			1						

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	Under Ages	1	2	3	4	To- tal un- der 5 yrs	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Bronchitis (unspecified 5 yrs. and over)																								
Males	3														1		1					1		
Females	2																1	1						
Total	5														1		2	1				1		
Broncho Pneumonia—																								
Males	140	39	21	7	1	68	5	1	2	2		1	5	4	4	13	3	7	8	9	6	1		
Females	90	25	12	4	3	44	2	1		1		2	1	1	2	2	2	4	3	10	10	3	2	
Total	229	64	33	11	4	112		2	2	3		3	6	5	6	15	5	11	11	19	16	4	2	
Lobar Pneumonia																								
Males	237	18	17	6	1	52	5	4	2	8	11	5	23	31	22	13	19	21	14	4	1	1	1	
Females	166	14	21	7	3	46	3	4	4	5	11	10	10	9	7	9	8	11	10	5	6	3	3	1
Total	403	32	38	13	4	98	8	8	6	13	23	15	33	40	29	22	27	32	24	9	7	4	4	1
Pleurisy—																								
Males	5		1	1		2									1		1				1			
Females	9	1	2			3	1			1	2	1	1											
Total	14	1	3			5	1			1	2	1	1		2		1			1				

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Under 1 yr				Total under 5 yrs.	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
		1	1	1	1		9	14	19	24	29	34	39	44	49	54	59	64	69	74	79	84	89	over
Congestion of the Lungs—																								
Males	22	1				1	1					1		1	1	1	1	3	3	4	1	3		1
Females	15	1	1			2					1				1	1		1			2	2		1
Total	37	1	2			3	1				1	1		1	2	2	1	6	3	6	3	5		2
Gangrene of the Lungs																								
Males	3														1	1		1						
Females	1											1				1								
Total	4												1		1	1		1						
Asthma																								
Males	11	2				2						1			1	3	1		1	2				
Females	5							1		1		1				1		1						
Total	16	2				2		1		1		2			1	4	1	1	1	2				
Other Diseases of the Respiratory System																								
Males	1															1								
Females																								
Total	1															1								

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	T otal under 5yrs	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
								to 9	to 14	to 19	to 24	to 29	to 34	to 39	to 44	to 49	to 54	to 59	to 64	to 69	to 74	to 79	to 84	to 89	and over
Abscess of the Lung—																									
Males	6											1	1	1			2	1							
Females	1						1																		
Total	7						1					1	1	1			2	1							
Diseases of the Digestive System—																									
Total	411																								
Diseases of Mouth, Pharynx and																									
Tonsils—																									
Males	5	2					2	1							1	1									
Females	1															1									
Total	6	2					2	1							1	2									
Ulcers of the Stomach—																									
Males	22						1	1				2	1	1	2	4	3	3	2			2			
Females	4												1		1			1	1						
Total	26						1	1				2	2	1	3	4	3	4	3			2			

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Other Diseases of the Stomach (Cancer excepted)																					
Males	7		1	1		2		1		1		1		1		1					
Females	8									1		1		1		1		1		1	
Total	15		1	1		2		1		2		2		2		2		2		2	
Diarrhoea and Enteritis under 2 years—																					
Males	38	36	2			38															
Females	34	32	2			34															
Total	72	68	4			72															
Diarrhoea and Enteritis, 2 years and over																					
Males	10			1	1	4					2				2		1				
Females	14			1		1		1		1	1					1	1		1		1
Total	24			2	1	5		2		2	3				2		2		2		2
Appendicitis and Typhoid—																					
Males	50			1	2	3	7	4	4	3	2	6	5	4	2	4		4	1	1	
Females	44	1	1	1	1	2	6	6	3	2	1	6	3	4	4	2	2	2	1		
Total	94	1	1	2	3	5	13	10	7	5	3	12	8	8	6	6	2	6	2	1	

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Under 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	over																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	5	Total under 5 yrs	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90 and over
									6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90 and over
Acute Nephritis—																										
Males	9					1		1	1	1			1			2	1		1			1				
Females	8				1			1			1	2		1		1	1						1			
Total	17				1	1		2	1	1	1	2	1	1		3	2		1			1	1			
Chronic Nephritis—																										
Males	143							1			2	1	3	5	8	13	14	20	15	11	18	14	11	5		2
Females	137							2	2	1	1	2	2	2	2	9	12	9	16	19	15	17	20	2	4	2
Total	280							3	2	3	2	5	7	10	10	22	26	29	31	30	33	31	31	7	4	4
Other Diseases of Kidneys and Annexa																										
Males	69													1	4	2	8	7	5	14	9	8	7	3	1	
Females	55								1				1		2	4	3	9	6	9	4	4	6	4	1	1
Total	124								1					1	6	6	11	16	11	23	13	12	13	7	2	1
Diseases of the Bladder—																										
Males	5																		1	1		2	1			
Females	2											1					1									
Total	7											1					1		1	1		2	1			

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	To- tal un- der 5 yrs	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Benign Tumors of the Uterus—																									
Males																									
Females	4										1			1	1	1									
Total	4										1			1	1	1									
Uterine Hemorrhage—																									
Males																									
Females	2													1		1									
Total	2													1		1									
Other Diseases of the Female Genital Organs																									
Males																									
Females	2													1			1								
Total	2													1			1								
The Puerperal State—																									
Total	63																								

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Under 1	1	2	3	4	Total under 5 yrs	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90 and over
Cesarean Section -																									
Males														1	1										
Females	1																								
Total	1													1	1										
Forcep Deliveries -																									
Males																									
Females	1																								
Total	1																								
Other Accidents of Labor—																									
Males																									
Females	1																								
Total	1																								
Puerperal Septicaemia																									
Males																									
Females	14																								
Total	14																								

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	To- tal un- der 5 yrs	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Other Diseases of the Skin																									
Males	1	1					1																		
Females	1													1											
Total	2	1					1							1											
Diseases of the Bones and Organs of Locomotion																									
Total	10																								
Diseases of the Bones (Tuberculosis excluded)																									
Males	5					1	2	1																	
Females	5	1			1	2								1				1							
Total	10	1			1	1	4	2	1	1				1				1							
Malignant Growths																									
Males	43	43					43																		
Females	26	26					26																		
Total	69	69					69																		
Early Infancy																									
Total	289																								

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	Ages	Totals																			
		Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Congenital Debility—																					
Males	47	44	2	1		47															
Females	34	32	2			34															
Total	81	76	4	1		81															
Premature Births—																					
Males	112	112				112															
Females	88	88				88															
Total	200	200				200															
Other Diseases of Early Infancy—																					
Males	5	5				5															
Females	3	3				3															
Total	8	8				8															
Old Age																					
Total	57																				
Senility																					
Males	28													1		2	4	10	5	4	2
Females	29															2	4	16	6	5	3
Total	57													1	1	4	8	26	14	9	5

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Under	1	2	3	4	Total under 5 yrs	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
		1																							
External Causes—																									
Total	464																								
Suicide by Corrosive Substances—																									
Males	1																								
Females																									
Total																									
Suicide by Solid or Liquid Poisoning																									
Males	4																								
Females	3																								
Total	6																								
Suicide by Poisonous Gas—																									
Males	26																								
Females	11																								
Total	37																								
Suicide by Hanging or Strangulation—																									
Males	13																								
Females	2																								
Total	15																								

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—*Continued*

CAUSES OF DEATH	All Ages	Under 5				Total Per 1,000	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
		1	2	3	4																			
Suicide by Poison—																								
Males	1									1														
Females	2													1			1							
Total	3									1				1			1							
Suicide by Fire Arms—																								
Males	11								1	1	1	2	1			2	1			1	1			
Females																								
Total	11								1	1	1	2	1			2	1			1	1			
Suicide by Cutting and Piercing Instruments—																								
Males	4													1				1						
Females																								
Total	4													1				1						
Suicide by Jumping																								
Males	2																1			1				
Females	3												1	1						1				
Total	5												1	1			1			2				

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	Age	Under 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	and over	
		1					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Other Acute Accidental Poisonings (Gas excepted)																																						
Males	12						1																	2			3	1			2	1						
Females	7		1				1								1	1	3																					
Total	19		1				1	1							1	3	3	4	1																			
Conflagration—																																						
Males	1																																					
Females	2							2																														
Total	3							2																														
Accidental Burns																																						
Males	17	1		2	1	1	5		1	2	1			1	1	1												2	1		1		1					
Females	12		1	1	2	1	5				1			2	2													1					1					
Total	29	1	1	3	3	2	10		1	2	2			3	3	1												3	1		1		2					
Suffocation by Bed Clothing—																																						
Males																																						
Females	1	1					1																															
Total	1	1					1																															

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSE OF DEATH	Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90 and over
Accidental Drowning—																					
Males	2						1			3	3	1	4	3	1	2	3				
Females	12				1	1				1	1	2	1		1	3	1	1		1	
Total	14				1	1	1			4	4	3	5	4	2	5	4	2	1	1	
Accidental Traumatism by Fire Arms—																					
Males	3				1		1			1											
Females	3						1			1											
Total	6				1		2			2											
Accidental Traumatism by Falls—																					
Males	58	1	2		3		3	2	1	4	6	6	9	5	9	2	3	1	2	1	1
Females	19	1			1	1				1	2	1	1	1	3		2	2	3	1	1
Total	77	2	2		4	1	3	2	1	5	8	7	10	6	12	2	5	3	5	2	2

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	All Ages	Un- der 1	1	2	3	4	To- tal un- der 5 yrs	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Accidental Traumatism by Machines—																									
Males	13										1	2		2	3	3	1	1							
Females																									
Total	13										1	2		2	3	3	1	1							
Accidental Railroad Accidents—																									
Males	10								1		1	2		3						1		1			
Females																									
Total	10								1		1	2		3			2			1		1			
Accidental Street Car Accidents—																									
Males	1												1												
Females																									
Total	1												1												
Accidental Automobile Accidents—																									
Males	90				4	2	6	15	5	2	5	5	4	8	4	3	5	7	8	8	3	1	2	1	1
Females	25		1	1			2	5	3	4	1			1	1	2	3		2			1			
Total	115		1	1	4	2	8	20	8	6	6	5	4	9	5	5	8	7	10	8	3	2	1	1	1

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	Age Groups	Under 1	1	2	3	4	Total under 5 yrs.	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over
Homicide by Fire Arms—																									
Males	11										2	4	1	1	2	1									
Females	2											1	1												
Total	13										2	5	2	1	2	1									
Homicide by Cutting or Piercing Instruments																									
Males	5									1	1		1	1		1									
Females	2										1				1										
Total	7									1	2		1	1	1	1									
Homicide by Other Means																									
Males	3	1					1	1		1															
Females	6								1			2	2	1											
Total	9	1					1	1	2			2	2	1											
Fractures (Cause not Specified)																									
Males	3							1	1															1	
Females	8																		1	4			2		
Total	11							1	1										1	4			4		

MORTALITY STATISTICS FOR NEWARK FOR YEAR 1928—Continued

CAUSES OF DEATH	Under 1			1 to 4			Total		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	
	Ages	1	2	3	4	Under 5 yrs	6	7	8	9	14	19	24	29	34	39	44	49	54	59	64	69	74	79	84	89	over 90
Other External Violence—																											
Males	10		2				2	2	1				1				1		1	1	1						
Females	16		2				2	2	1				1				1		1	1	1						
III Defined Causes—																											
Males	6	1		1			2								1		1		2								
Females	3	1		1			2	1																			
Total	9	2		2			4	1							1		1		2								

FINANCIAL REPORT FOR YEAR 1928

RECEIPTS

	Tax Appropria- tion	Animal Permits	Anti-toxins Sales	Bacterio- logical Examina- tions	Chicken Permits	Chicken Slaughter House Permits	Ice Licenses	Milk Licenses	Milk Penalties	Plumbing Permits	Plumbers' Licenses	Miscel- laneous
City Commissioners	\$525,000.00											
Sanitary Division		\$ 6.60			\$ 429.00	\$2,040.00	\$1,006.50					\$ 68.00
Food and Drug Division								\$5,320.50	\$ 685.00			7.42
Plumbing Division										\$3,988.00	\$2,935.00	290.00
Laboratory Division			\$ 30.00	\$ 748.15								74.60
Total	\$525,000.00	\$ 6.60	\$ 30.00	\$ 748.15	\$ 429.00	\$2,040.00	\$1,006.50	\$5,320.50	\$ 685.00	\$3,988.00	\$2,935.00	\$ 440.02
												\$542,628.77

DISBURSEMENTS

DIVISIONS	Salaries	Heat, Light, Power, Tele- phones	Furniture and Fixtures	Improve- ments and Repairs	Printing, Stationery, Postage	Traveling Expenses	Janitors' Supplies	Cable Expenses	Drugs and Surgical Supplies	Auto- mobiles and Motor- cycles	Auto- mobiles and Motorcycle Main- tenance	Miscel- laneous	Total
Administrative	\$ 44,555.14	\$5,342.18	\$ 217.50	\$4,190.14	\$4,118.82	\$ 200.19	\$ 811.29				\$ 432.11	\$ 615.85	\$ 60,489.22
Laboratories	40,100.79		2,546.19		1,464.06	106.89		\$3,232.13	\$3,848.16		930.00	877.40	53,105.62
Dispensary	43,278.56		1,386.36	611.98	470.60	144.55			11,609.21			33.00	58,194.26
Sanitary	86,295.74		86.08		574.83	363.10				\$ 474.00	564.49	576.02	88,934.26
Child Hygiene	41,748.83	88.00	1,335.13	95.03	429.25	394.80	368.75		763.87			1,664.78	46,888.46
Tuberculosis	26,897.76		354.75		240.95	795.51			418.32				28,707.29
Food and Drugs	71,018.56		249.20		1,960.11	3,383.06			7,238.16		2,610.00	761.91	81,221.00
Plumbing	28,006.36		425.00		188.10	161.35						240.00	28,990.81
Parochial Schools	17,359.36				211.65	286.80			9,009.80			17.30	18,784.91
Contagious	47,628.48				2,680.50	160.20			694.10			1,926.70	53,039.98
District Doctors	6,272.64												6,272.64
Total	\$453,162.22	\$5,430.18	\$6,600.23	\$4,903.15	\$12,308.87	\$5,996.45	\$1,180.04	\$3,232.13	\$20,091.02	\$ 474.00	\$4,536.60	\$6,712.96	\$524,628.45

*Includes \$1,650.00 for Rent of Keep Well Stations.

Includes \$1,926.70 for Reporting Contagious Diseases.

